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FILE COVERS 1907 - 27 Mar 2003 VOL 138 ISS 13
 FILE LAST UPDATED: 26 Mar 2003 (20030326/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot 1119

L119 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS
 AN 2002:965120 HCAPLUS
 DN 138:20904
 TI Fungicidal and bactericidal **compositions** for plants containing **phosphonate** and **phosphate** salts, metal chelates, and derivatives thereof
 IN **Taylor, John B.**
 PA USA
 SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 702,417.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A01N057-00
 ICS A01N057-10
 NCL 514114000; 514143000
 CC 5-2 (**Agrochemical** Bioregulators)
 FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002193351	A1	20021219	US 2001-17687	20011030 <--
	US 5736164	A	19980407	US 1996-705594	19960830 <--
	US 5800837	A	19980901	US 1997-812865	19970306 <--
	AU 9744953	A1	19990412	AU 1997-44953	19970919 <--
	AU 741341	B2	20011129		
	NZ 503394	A	20020301	NZ 1997-503394	19970919 <--
	US 5997910	A	19991207	US 1998-109139	19980702 <--
	US 6139879	A	20001031	US 1999-387100	19990831 <--
	US 6338860	B1	20020115	US 1999-419127	19991015 <--
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	US 1998-109139	A2	19980702 <--		
	US 1999-387100	A2	19990831 <--		
	US 1999-419127	A2	19991015 <--		
	US 2000-702417	A2	20001031		
	WO 1997-US16997	A	19970919 <--		

AB The invention relates to **compns.** contg. at least one metal

Jan Delaval
 Reference Librarian
 Biotechnology & Chemical Librarian
 CM1 1E07 - 703-308-4498
 jan.delaval@usoto.com

chelate, at least one **phosphonate** and at least one **phosphate**. The **compns.** are fungicides and bactericides. The **compns.** are esp. effective against *Phytophthora infestans*.

ST agrochem fungicide bactericide **phosphonate phosphate**
metal chelate

IT Antibacterial agents
Fungicides
(agrochem.; fungicidal and bactericidal **compns.** for plants
contg. **phosphonate** and **phosphate** salts, metal
chelates, and derivs. thereof)

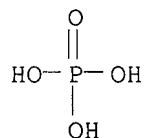
IT *Phytophthora infestans*
(control by fungicidal and bactericidal **compns.** for plants
contg. **phosphonate** and **phosphate** salts, metal
chelates, and derivs. thereof)

IT 1170-02-1, EDDHA 7439-89-6D, Iron, chelates 7439-96-5D, Manganese,
chelates 7440-31-5D, Tin, chelates 7440-50-8D, Copper, chelates
7440-66-6D, Zinc, chelates 7722-76-1, Monoammonium
phosphate 7758-11-4, Dipotassium **phosphate**
7778-77-0, Monopotassium **phosphate** 7783-28-0,
Diammonium **phosphate** 10361-65-6, Triammonium
phosphate 13446-12-3, Monoammonium **phosphonate**
13492-26-7, Dipotassium **phosphonate** 13977-65-6
, Monopotassium **phosphonate** 22132-71-4, Diammonium
phosphonate 62534-80-9 94770-71-5, p-EDDHA 94770-71-5D,
p-EDDHA, metal chelate 109172-81-8D, EDDHMA, metal chelate 170501-62-9
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(agrochem. fungicidal and bactericidal **compns.** contg.)

IT 7722-76-1, Monoammonium **phosphate** 7758-11-4,
Dipotassium **phosphate** 7778-77-0, Monopotassium
phosphate 7783-28-0, Diammonium **phosphate**
10361-65-6, Triammonium **phosphate** 13446-12-3,
Monoammonium **phosphonate** 13492-26-7, Dipotassium
phosphonate 13977-65-6, Monopotassium
phosphonate 22132-71-4, Diammonium **phosphonate**
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(agrochem. fungicidal and bactericidal **compns.** contg.)

RN 7722-76-1 HCAPLUS

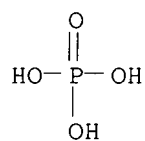
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● NH₃

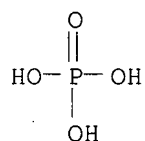
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CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



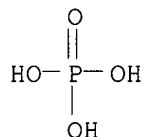
● 2 K

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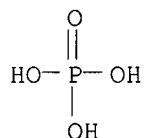


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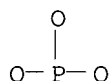
RN 7783-28-0 HCAPLUS
CN Phosphoric acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

● 2 NH₃

RN 10361-65-6 HCAPLUS
CN Phosphoric acid, triammonium salt (8CI, 9CI) (CA INDEX NAME)

● 3 NH₃

RN 13446-12-3 HCAPLUS
CN Phosphonic acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

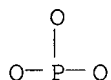


● NH₃

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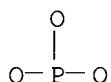


● 2 K

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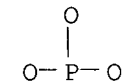


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*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 22132-71-4 HCAPLUS

CN Phosphonic acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)



● 2 NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

L119 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:555266 HCAPLUS

DN 137:105158

TI Agrochemical fungicides and bactericides containing **phosphonate**
and/or **phosphate** salt, or metal chelates

IN **Taylor, John B.**

PA **Foliar Nutrients, Inc., USA**

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent
 LA English
 IC ICM A01N
 CC 5-2 (Agrochemical Bioregulators)
 FAN.CNT 8

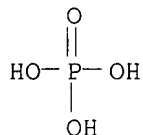
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002056680	A2	20020725	WO 2001-US45376	20011031
	WO 2002056680	A3	20020919		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 9744953	A1	19990412	AU 1997-44953	19970919 <--
	AU 741341	B2	20011129		
	NZ 503394	A	20020301	NZ 1997-503394	19970919 <--
PRAI	US 2000-702417	A	20001031		
	WO 1997-US16997	A	19970919	<--	
OS	MARPAT 137:105158				
AB	The present invention relates to compns. contg. at least one metal chelate, at least one phosphonate salt, and at least one phosphate salt, which are used as fungicides and bactericides. Phosphate-phosphonate mixts. are synergistic. The preferred chelates are Cu-EDDHA, Cu-pEDDHA, and Cu EDDHMA. The agents are esp. useful for the control of Phytophthora infestans on tomato.				
ST	fungicide bactericide phosphonate phosphate metal chelate				
IT	Tomato (Phytophthora control on tomato by phosphonate and/or phosphate salts, or metal chelates)				
IT	Antibacterial agents (agrochem. fungicides and bactericides contg. phosphonate and/or phosphate salt, or metal chelates)				
IT	Fungicides (agrochem.; agrochem. fungicides and bactericides contg. phosphonate and/or phosphate salt, or metal chelates)				
IT	Phytophthora infestans (control on tomato by phosphonate and/or phosphate salts, or metal chelates)				
IT	7722-76-1, Monoammonium phosphate 7758-11-4, Dipotassium phosphate 7778-53-2, Tripotassium phosphate 7778-77-0, Monopotassium phosphate 7783-28-0, Diammonium phosphate 10361-65-6, Triammonium phosphate 13446-12-3, Monoammonium phosphonate 13492-26-7, Dipotassium phosphonate 13977-65-6, Monopotassium phosphonate 14265-44-2D, Phosphate , salt 15477-76-6D, Phosphonate , salt 22132-71-4, Diammonium phosphonate RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (agrochem. fungicide and bactericide)				
IT	1170-02-1D, EDDHA, metal chelates 7439-89-6D, Iron, chelates 7439-96-5D, Manganese, chelates 7440-31-5D, Tin, chelates 7440-50-8D, Copper, chelates 7440-66-6D, Zinc, chelates 94770-71-5D, metal chelates 109172-81-8D, EDDHMA, metal chelates RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (agrochem. fungicides and bactericides)				

IT 386229-92-1
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (synergistic agrochem. fungicide and bactericide)

IT 7722-76-1, Monoammonium phosphate 7758-11-4,
 Dipotassium phosphate 7778-53-2, Tripotassium
 phosphate 7778-77-0, Monopotassium phosphate
 7783-28-0, Diammonium phosphate 10361-65-6,
 Triammonium phosphate 13446-12-3, Monoammonium
 phosphonate 13492-26-7, Dipotassium phosphonate
 13977-65-6, Monopotassium phosphonate
 14265-44-2D, Phosphate, salt 15477-76-6D,
 Phosphonate, salt 22132-71-4, Diammonium
 phosphonate
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (agrochem. fungicide and bactericide)

RN 7722-76-1 HCAPLUS

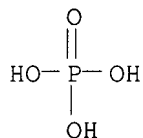
CN Phosphoric acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)



● NH₃

RN 7758-11-4 HCAPLUS

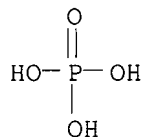
CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

RN 7778-53-2 HCAPLUS

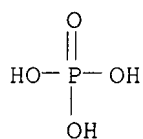
CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



● 3 K

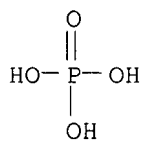
RN 7778-77-0 HCAPLUS

CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

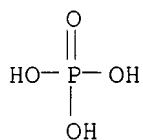


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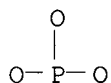
RN 7783-28-0 HCAPLUS
CN Phosphoric acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

●2 NH₃

RN 10361-65-6 HCAPLUS
CN Phosphoric acid, triammonium salt (8CI, 9CI) (CA INDEX NAME)

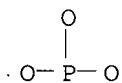
●3 NH₃

RN 13446-12-3 HCAPLUS
CN Phosphonic acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

● NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13492-26-7 HCAPLUS
CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

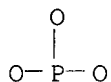


● 2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13977-65-6 HCAPLUS

CN Phosphonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

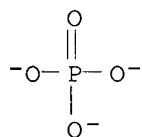


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*** FRAGMENT DIAGRAM IS INCOMPLETE ***

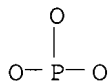
RN 14265-44-2 HCAPLUS

CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 15477-76-6 HCAPLUS

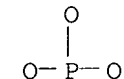
CN Phosphonic acid, ion(2-) (8CI, 9CI) (CA INDEX NAME)



*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 22132-71-4 HCAPLUS

CN Phosphonic acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

● 2 NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

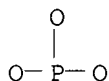
IT 386229-92-1

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (synergistic agrochem. fungicide and bactericide)

RN 386229-92-1 HCAPLUS
CN Phosphoric acid, dipotassium salt, mixt. with dipotassium phosphonate
(9CI) (CA INDEX NAME)

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CRN 13492-26-7
CMF H3 O3 P . 2 K

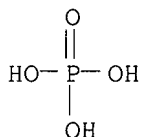


● 2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 7758-11-4
CMF H3 O4 P . 2 K



● 2 K

L119 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:39557 HCAPLUS
DN 136:81312
TI Fungicidal **compositions** for plants against Phytophthora
containing **phosphonate** and **phosphate** salts
IN **Taylor, John B.**
PA **Foliar Nutrients, Inc., USA**
SO U.S., 8 pp., Cont.-in-part of U.S. 5,997,910.
CODEN: USXXAM
DT Patent
LA English
IC ICM A01N059-26
ICS A01N057-00; A01N057-18; A01N057-10
NCL 424601000
CC 5-2 (**Agrochemical** Bioregulators)
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 6338860	B1	20020115	US 1999-419127	19991015 <--
	US 5736164	A	19980407	US 1996-705594	19960830 <--
	US 5800837	A	19980901	US 1997-812865	19970306 <--
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	AU 741341	B2	20011129		
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US 5997910 A 19991207 US 1998-109139 19980702 <--
 WO 2001028335 A1 20010426 WO 2000-US41021 20000928 <--
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 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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 US 6509041 B2 20030121
 US 2002193351 A1 20021219 US 2001-17687 20011030 <--
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 US 1997-812865 A3 19970306 <--
 US 1998-109139 A2 19980702 <--
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 WO 1997-US16997 A 19970919 <--
 US 1999-387100 A2 19990831 <--
 US 1999-419127 A 19991015 <--
 WO 2000-US41021 W 20000928
 US 2000-702417 A2 20001031

OS MARPAT 136:81312

AB A **compn.** for preventing and controlling diseases in plants caused by Phytophthora, comprises an effective amt. of at least one first **phosphonate** (PO3) salt [(R1O)P(R2)(:O)(O)]nMen+ and a second **phosphate** (PO4) salt (R1O)P(OR2)(:O)(OH) (R1 = H, K, C1-C4 alkyl, halogen- or nitro-substituted alkyl, alkenyl, halogen-substituted alkenyl, alkynyl, halogen-substituted alkynyl, alkoxy-substituted alkyl, ammonium substituted by alkyl or hydroxy alkyl; R2, R3 = H, K; Me = K, alk. earth metal, Al, NH3; n = 1-3, equal to valence of Me) whereby said effective amts. of said first salt and said second salt, when **combined**, have a **synergistic** effect on said disease prevention and control.

ST **phosphonate phosphate fungicide synergistic**
 Phytophthora

IT Phytophthora infestans
 Phytophthora megasperma glycinea
 (fungicidal **compns.** for plants a contg. **phosphonate** and **phosphate** salts, against)

IT Fungicides
 (**synergistic**; fungicidal **compns.** for plants against
 Phytophthora contg. **phosphonate** and **phosphate** salts)

IT 7758-11-4D, Dipotassium **phosphate**, mixt. with
phosphonates 7778-53-2D, Tripotassium **phosphate**
 , mixt. with **phosphonates** 7778-77-0D,
 Monopotassium **phosphate**, mixt. with
phosphonates 13446-12-3D, Monoammonium
phosphate, mixt. with **phosphates**
 13492-26-7D, Dipotassium **phosphonate**, mixt.
 with **phosphates** 13977-65-6D, Monopotassium
phosphonate, mixt. with **phosphates**
 22132-71-4D, Diammonium **phosphonate**, mixt.
 with **phosphates** 386229-92-1

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (fungicidal **compns.** for plants against Phytophthora contg.)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

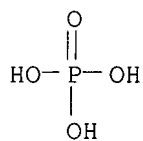
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- (1) Anon; Australasian Plant Pathology P138
- (2) Anon; Australasian Plant Pathology P144
- (3) Anon; Australasian Plant Pathology P921
- (4) Anon; Australasian Plant Pathology 1990, V19(4), P112
- (5) Anon; The Merck Index An Encyclopedia of Chemicals, Drugs, and Biologicals Eleventh Edition 1989, P1216
- (6) Barlet; US 4935410 A 1990 HCAPLUS
- (7) Barlet; US 5070083 A 1991 HCAPLUS
- (8) Barr; US 5133891 A 1992 HCAPLUS
- (9) Collins; US 5206228 A 1993 HCAPLUS
- (10) Corbet; US 4755614 A 1988 HCAPLUS
- (11) Ducret; US 4139616 A 1979 HCAPLUS
- (12) Forster, H; Plant Disease 1998, V82(10), P1165 HCAPLUS
- (13) Frazier, A; Fertilizer Research 1992, V32, P161 HCAPLUS
- (14) Fred, A; Transition of Phosphite to Phosphate in Soils 1952, P361
- (15) George, M; Bacterial Oxidation of Orthophosphite 1966, P578
- (16) Greiner; US 5124344 A 1992 HCAPLUS
- (17) Greiner; US 5246953 A 1993 HCAPLUS
- (18) Greiner; US 5290791 A 1994 HCAPLUS
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- (20) Hodakowski; US 4780458 A 1988 HCAPLUS
- (21) Horriere; US 4698334 A 1987 HCAPLUS
- (22) Horriere; US 4806445 A 1989 HCAPLUS
- (23) Horriere; US 5169646 A 1992 HCAPLUS
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- (31) Sheehan; US 5585150 A 1996
- (32) Smillie; Disease control and Pest Management 1989, V79(9), P921 HCAPLUS
- (33) Soil Bureau; The Use of Red Phosphorus As A Fertilizer 1964, P427
- (34) Staub; US 4849219 A 1989 HCAPLUS
- (35) Supa Crop; Agrichem Manufacturing Industries Pty, Ltd brochure 1990
- (36) Thixy; US 4119724 A 1978 HCAPLUS
- (37) Thizy; US 4075324 A 1978 HCAPLUS
- (38) Vetanovetz; US 5395418 A 1995 HCAPLUS

IT 7758-11-4D, Dipotassium phosphate, mixt. with phosphonates 7778-53-2D, Tripotassium phosphate, mixt. with phosphonates 7778-77-0D, Monopotassium phosphate, mixt. with phosphonates 13446-12-3D, Monoammonium phosphonate, mixt. with phosphates 13492-26-7D, Dipotassium phosphonate, mixt. with phosphates 13977-65-6D, Monopotassium phosphonate, mixt. with phosphates 22132-71-4D, Diammonium phosphonate, mixt. with phosphates 386229-92-1
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fungicidal compns. for plants against Phytophthora contg.)

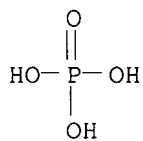
RN 7758-11-4 HCAPLUS

CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



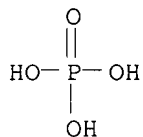
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RN 7778-53-2 HCAPLUS
CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



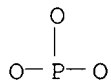
● 3 K

RN 7778-77-0 HCAPLUS
CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



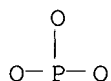
● K

RN 13446-12-3 HCAPLUS
CN Phosphonic acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

● NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13492-26-7 HCAPLUS
CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

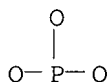


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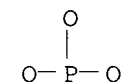


● K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 22132-71-4 HCAPLUS

CN Phosphonic acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

● 2 NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

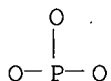
RN 386229-92-1 HCAPLUS

CN Phosphoric acid, dipotassium salt, mixt. with dipotassium phosphonate (9CI) (CA INDEX NAME)

CM 1

CRN 13492-26-7

CMF H3 O3 P . 2 K



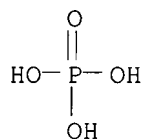
● 2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 7758-11-4

CMF H3 O4 P . 2 K



● 2 K

L119 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:300431 HCAPLUS
 DN 134:291526
 TI Fungicidal **compositions** for plants against Phytophthora
 containing **phosphonate** and **phosphate** salts, and
 derivatives thereof
 IN **Taylor, John B.**
 PA **Foliar Nutrients, Inc., USA**
 SO PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A01N057-00
 ICS A01N057-10; A01N057-18; A01N059-26
 CC 5-2 (**Agrochemical** Bioregulators)
 FAN.CNT 8

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						CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
						IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
						MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
						SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,
						BY, KG, KZ, MD, RU, TJ, TM
	RW:					GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
						DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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						IE, SI, LT, LV, FI, RO, MK, CY, AL
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PRAI	US 1999-419127	A	19991015			<--
	US 1996-705594	A2	19960830			<--
	US 1997-812865	A3	19970306			<--
	WO 1997-US16997	A	19970919			<--
	US 1998-109139	A2	19980702			<--
	WO 2000-US41021	W	20000928			
AB	A fungicidal compn. for plants contg. phosphonate					
	(PO3) and phosphate (PO4) salts, and derivs. thereof is					
	disclosed. The compn. provides a single product which may be					
	employed to control a Phytophthora infestans infection in plants.					
ST	fungicide phosphonate phosphate salt Phytophthora					
IT	Fungicides					

(fungicidal **compns.** for plants against Phytophthora contg. **phosphonate** and **phosphate** salts, and derivs. thereof)

IT Phytophthora infestans
(fungicidal **compns.** for plants contg. **phosphonate** and **phosphate** salts, and derivs. thereof, against)

IT Alkaline earth metals
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(**phosphoric** and phosphonic acid derivs. salts; fungicidal **compns.** for plants contg.)

IT 7722-76-1, Monoammonium **phosphate** 7758-11-4, Dipotassium **phosphate** 7778-53-2, Tripotassium **phosphate** 7778-77-0, Monopotassium **phosphate** 7783-28-0, Diammonium **phosphate** 13446-12-3, Phosphonic acid, monoammonium salt 13492-26-7, Dipotassium **phosphonate** 13977-65-6, Monopotassium **phosphonate** 22132-71-4, Phosphonic acid, Diammonium salt 41607-57-2
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fungicidal **compns.** for plants against Phytophthora infestans contg.)

IT 7429-90-5, Aluminum, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(**phosphoric** and phosphonic acid derivs. salts; fungicidal **compns.** for plants against Phytophthora infestans contg.)

IT 14798-03-9, Ammonium, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(**phosphoric** and phosphonic acid derivs. salts; fungicidal **compns.** for plants contg.)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

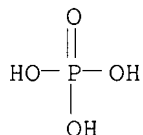
RE

(1) Taylor; US 5736164 A 1998 HCAPLUS
(2) Taylor; US 5800837 A 1998 HCAPLUS
(3) Taylor; US 5925383 A 1999 HCAPLUS
(4) Taylor; US 5997910 A 1999 HCAPLUS

IT 7722-76-1, Monoammonium **phosphate** 7758-11-4, Dipotassium **phosphate** 7778-53-2, Tripotassium **phosphate** 7778-77-0, Monopotassium **phosphate** 7783-28-0, Diammonium **phosphate** 13446-12-3, Phosphonic acid, monoammonium salt 13492-26-7, Dipotassium **phosphonate** 13977-65-6, Monopotassium **phosphonate** 22132-71-4, Phosphonic acid, Diammonium salt 41607-57-2
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fungicidal **compns.** for plants against Phytophthora infestans contg.)

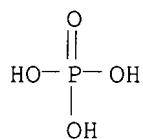
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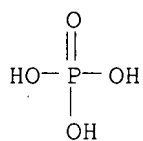
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CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



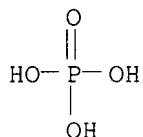
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RN 7778-53-2 HCAPLUS
CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



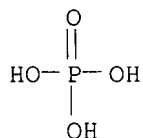
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RN 7778-77-0 HCAPLUS
CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

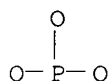


● K

RN 7783-28-0 HCAPLUS
CN Phosphoric acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

●2 NH₃

RN 13446-12-3 HCAPLUS
CN Phosphonic acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

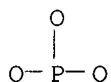


● NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13492-26-7 HCAPLUS

CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

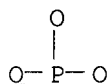


● 2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13977-65-6 HCAPLUS

CN Phosphonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

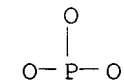


● K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 22132-71-4 HCAPLUS

CN Phosphonic acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

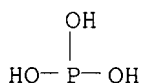


● 2 NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 41607-57-2 HCAPLUS

CN Phosphorous acid, tripotassium salt (9CI) (CA INDEX NAME)



● 3 K

L119 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:300430 HCAPLUS

DN 134:291525

TI Fungicidal **compositions** for plants containing
phosphonate and **phosphate** salts, and derivatives thereofIN **Taylor, John B.**PA **Foliar Nutrients, Inc., USA**

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A01N057-00

ICS A01N057-10; A01N057-18; A01N059-26

CC 5-2 (**Agrochemical** Bioregulators)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028334	A1	20010426	WO 2000-US26666	20000928 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 1999-418813 A 19991015 <--

AB A fungicidal **compn.** for controlling fungal diseases in plants
contains at least one **phosphonate** and one **phosphate**
salts or derivs. thereof in an aq. soln.ST fungicide **phosphonate phosphate** salt

IT Fungicides

(fungicidal **compns.** for plants contg. **phosphonate**
and **phosphate** salts, and derivs. thereof)

IT Alkaline earth metals

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(**phosphoric** and phosphonic acid derivs. salts; fungicidal
compns. for plants contg.)IT 7722-76-1, Monoammonium **phosphate** 7758-11-4,
Dipotassium **phosphate** 7778-53-2, Tripotassium
phosphate 7778-77-0, Monopotassium **phosphate**
7783-28-0, Diammonium **phosphate** 13446-12-3,
Monoammonium **phosphonate** 13492-26-7, Dipotassium
phosphonate 13977-65-6, Monopotassium
phosphonate 22132-71-4, Diammonium **phosphonate**
41607-57-2RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fungicidal **compns.** for plants contg.)IT 7429-90-5, Aluminum, biological studies 14798-03-9, Ammonium, biological
studies

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(phosphoric and phosphonic acid derivs. salts; fungicidal
compns. for plants contg.)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
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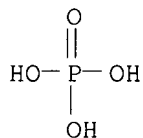
- (1) Collins; US 5206228 A 1993 HCAPLUS
- (2) Horriere; US 4698334 A 1987 HCAPLUS
- (3) Rippey; US 1935599 A 1933 HCAPLUS
- (4) Thizy; US 4119724 A 1978 HCAPLUS

IT 7722-76-1, Monoammonium **phosphate** 7758-11-4,
Dipotassium **phosphate** 7778-53-2, Tripotassium
phosphate 7778-77-0, Monopotassium **phosphate**
7783-28-0, Diammonium **phosphate** 13446-12-3,
Monoammonium **phosphonate** 13492-26-7, Dipotassium
phosphonate 13977-65-6, Monopotassium
phosphonate 22132-71-4, Diammonium **phosphonate**
41607-57-2

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fungicidal **compns.** for plants contg.)

RN 7722-76-1 HCAPLUS

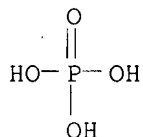
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● NH₃

RN 7758-11-4 HCAPLUS

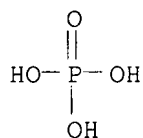
CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

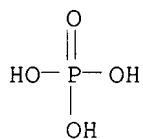
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CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



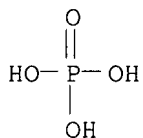
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CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



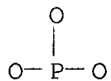
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RN 7783-28-0 HCAPLUS
CN Phosphoric acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)



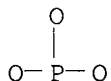
●2 NH₃

RN 13446-12-3 HCAPLUS
CN Phosphonic acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)



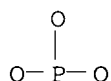
● NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***
RN 13492-26-7 HCAPLUS
CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



●2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***
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CN Phosphonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

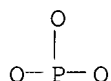


● K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 22132-71-4 HCAPLUS

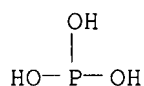
CN Phosphonic acid, diammonium salt (8CI, 9CI) (CA INDEX NAME)

● 2 NH₃

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 41607-57-2 HCAPLUS

CN Phosphorous acid, tripotassium salt (9CI) (CA INDEX NAME)



● 3 K

L119 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:768960 HCAPLUS

DN 133:330908

TI Heavy metal chelates as fungicides and bactericides **compositions**
for plantsIN **Taylor, John B.**PA **Foliar Nutrients, Inc., USA**SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 881,968, abandoned.
CODEN: USXXAM

DT Patent

LA English

IC ICM A01N059-20

ICS A01N059-16; A01N031-00; A01N033-00; A01N037-00

NCL 424630000

CC 5-2 (Agrochemical Bioregulators)

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 6139879	A	20001031	US 1999-387100	19990831
	AU 9744953	A1	19990412	AU 1997-44953	19970919
	AU 741341	B2	20011129		
	NZ 503394	A	20020301	NZ 1997-503394	19970919
	WO 2001015529	A1	20010308	WO 2000-US23706	20000829

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002193351 A1 20021219 US 2001-17687 20011030
 PRAI US 1997-881968 B2 19970625
 US 1996-705594 A2 19960830
 US 1997-812865 A3 19970306
 WO 1997-US16997 A 19970919
 US 1998-109139 A2 19980702
 US 1999-387100 A 19990831
 US 1999-419127 A2 19991015
 US 2000-702417 A2 20001031
 AB The invention relates to heavy metal chelates, which are used as agrochem.
 fungicides and bactericides. In particular, the invention relates to Cu
 complex of EDDHA.
 ST heavy metal chelate agrochem fungicide bactericide
 IT Antibacterial agents
 Fungicides
 (agrochem.; heavy metal chelates)
 IT Heavy metals
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (chelates; agrochem. fungicides and bactericides)
 IT Chelates
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (heavy metal; agrochem. fungicides and bactericides)
 IT 19441-99-7 62534-80-9 72901-53-2 80967-87-9
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (agrochem. fungicide and bactericide)
 IT 1170-02-1D, EDDHA, chelates with heavy metals 7439-96-5D, Manganese,
 chelates, biological studies 7440-31-5D, Tin, chelates, biological
 studies 7440-50-8D, Copper, chelates, biological studies 7440-66-6D,
 Zinc, chelates, biological studies 94770-71-5D, p-EDDHA, chelates with
 heavy metals 109172-81-8D, EDDHMA, chelates with heavy metals
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (agrochem. fungicides and bactericides)
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

- (1) Aboulroos; Journal of Plant Nutrition and Soil Science 1981, V144(2), P164 HCAPLUS
- (2) Albrecht; US 4041164 1977 HCAPLUS
- (3) Anon; WO 9308971 1993 HCAPLUS
- (4) Dawson; US 5152820 1992 HCAPLUS
- (5) D'Amico; US 3852444 1974 HCAPLUS
- (6) Goetticher; Fresenius' J Anal Chem 1995, V352(3-4), P398
- (7) Haley; US 5342980 1994 HCAPLUS
- (8) Kannan; Commun Soil Sci Plant Anal 1976, V7(9), P763 HCAPLUS
- (9) Karacal; International Rice Research Newsletter 1986, V11(6), P29
- (10) Knell; US 2921847 1960 HCAPLUS
- (11) Krajncic; J Plant Physiol 1995, V147(3/4), P397 HCAPLUS
- (12) Matocha; 1997 Proceedings Beltwide Cotton Conferences 1997, V1, P135
- (13) McCaslin; N M, Agric Exp Stn, Res Rep 1977, V334, P1
- (14) Muller; US 4517362 1985 HCAPLUS
- (15) Nabhan; Plant Soil 1977, V46(3), P603 HCAPLUS
- (16) Ramani; J Plant Nutr 1985, V8(12), P1183 HCAPLUS
- (17) Ramani; J Plant Nutr 1985, V8(12), P1199 HCAPLUS
- (18) Ramani; J Plant Physiol 1985, V121(4), P313 HCAPLUS
- (19) Scher; US 4714614 1987 HCAPLUS
- (20) Skrzypczak; Phytopathol Polonica 1996, V11, P41

L119 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:227440 HCAPLUS

DN 132:261672

TI Weed growth-inhibiting **formulations** containing nonselective organophosphorus herbicides

IN Horibe, Yoshimichi; Amagasa, Tadashi; Sato, Kazuo; Aoki, Atsushi

PA Sankyo Company, Limited, Japan

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A01N057-20

ICS A01N057-12; A01N063-02; A01N059-06; A01N025-00

CC 5-3 (**Agrochemical** Bioregulators)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000018236	A1	20000406	WO 1999-JP5174	19990922 <--
	W: AU, BR, CA, CN, KR, RU, UA, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

	AU 9957577	A1	20000417	AU 1999-57577	19990922 <--
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	JP 2000159615	A2	20000613	JP 1999-267910	19990922 <--
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PRAI	JP 1998-271696	A	19980925	<--
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	WO 1999-JP5174	W	19990922	<--
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OS MARPAT 132:261672

AB Agrochem. **compns.** that can be utilized to control the growth of weeds without killing the plants (e.g. on slopes or ridges) contain a first ingredient selected from the group consisting of glyphosate, etc.; a second ingredient selected from the group consisting of phosphorous acid derivs., etc.; and a third ingredient selected from the group consisting of antioxidants, etc. Thus, glyphosate isopropylamine salt 1000 + calcium propionate 500 + Pr gallate 1000 ppm controlled the height of gramineous weeds such as Setaria viridis and broadleaf weeds (e.g. Ipomoea purpurea).

ST weed growth inhibitor organophosphorus herbicide **formulation**

IT Surfactants

(anionic; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Tannins

RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(antioxidant; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Weed control

(**formulations** contg. nonselective organophosphorus herbicides for controlling weed growth)

IT Hormones, plant

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(growth inhibitors; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Amines, biological studies

RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(hindered, photostabilizers; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Alums

Borates

Carbonates, biological studies

Chlorates

Cyanates

Hydrogen halides
 Nitrates, biological studies
 Nitrites
 Peroxysulfates
Phosphates, biological studies
 Salts, biological studies
 Sulfates, biological studies
 Sulfites
 Thiosulfates
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (mixts.; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Herbicides
 (organophosphorus; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Antioxidants
 (phenolic; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Amino acids, biological studies
 Carboxylic acids, biological studies
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (salts, mixts. with organophosphorus herbicides; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT Agrochemical **formulations**
 Antioxidants
 Light stabilizers
 Surfactants
 (weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 121-79-9, Propyl gallate
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
 (antioxidant; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
 (photostabilizer; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 9069-80-1, Formaldehyde-naphthalenesulfonic acid polymer ammonium salt
 9084-06-4, Naphthalenesulfonic acid-formaldehyde polymer sodium salt
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
 (surfactant; weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 207670-92-6
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 50-00-0D, Formaldehyde, salts, mixts., biological studies 50-21-5D,
 Lactic acid, salts, mixts. with organophosphorus herbicides 50-81-7D,
 L-Ascorbic acid, salts, mixts. with organophosphorus herbicides,
 biological studies 52-90-4D, Cysteine, salts, mixts. with
 organophosphorus herbicides 56-12-2D, GABA, salts, mixts. with
 organophosphorus herbicides 56-40-6D, Glycine, salts, mixts. with
 organophosphorus herbicides, biological studies 56-41-7D, Alanine,
 salts, mixts. with organophosphorus herbicides 56-45-1D, Serine, salts,
 mixts. with organophosphorus herbicides 56-84-8D, Aspartic acid, salts,
 mixts. with organophosphorus herbicides 56-85-9D, Glutamine, salts,

mixts. with organophosphorus herbicides 56-86-0D, Glutamic acid, salts,
mixts. with organophosphorus herbicides 56-87-1D, Lysine, salts, mixts.
with organophosphorus herbicides 56-89-3D, Cystine, salts, mixts. with
organophosphorus herbicides 60-18-4D, Tyrosine, salts, mixts. with
organophosphorus herbicides 61-90-5D, Leucine, salts, mixts. with
organophosphorus herbicides 63-68-3D, Methionine, salts, mixts. with
organophosphorus herbicides 63-91-2D, Phenylalanine, salts, mixts. with
organophosphorus herbicides 64-18-6D, Formic acid, salts, mixts. with
organophosphorus herbicides, biological studies 64-19-7D, Acetic acid,
salts, mixts. with organophosphorus herbicides, biological studies
70-26-8D, Ornithine, salts, mixts. with organophosphorus herbicides
70-47-3D, Asparagine, salts, mixts. with organophosphorus herbicides
71-00-1D, Histidine, salts, mixts. with organophosphorus herbicides
72-18-4D, Valine, salts, mixts. with organophosphorus herbicides
72-19-5D, Threonine, salts, mixts. with organophosphorus herbicides
73-22-3D, Tryptophan, salts, mixts. with organophosphorus herbicides
73-32-5D, Isoleucine, salts, mixts. with organophosphorus herbicides
74-79-3D, Arginine, salts, mixts. with organophosphorus herbicides
79-09-4D, Propionic acid, salts, mixts. with organophosphorus herbicides
87-69-4D, Tartaric acid, salts, mixts. with organophosphorus herbicides,
biological studies 89-00-9D, Quinolinic acid, salts, mixts. 97-65-4D,
Itaconic acid, salts, mixts. with organophosphorus herbicides 98-98-6D,
Picolinic acid, salts, mixts. 99-50-3D, Protocatechuic acid, salts,
mixts. with organophosphorus herbicides 99-96-7D, 4-Hydroxybenzoic acid,
salts, mixts. with organophosphorus herbicides 103-82-2D, Phenylacetic
acid, salts, mixts. with organophosphorus herbicides 107-95-9D,
.beta.-Alanine, salts, mixts. with organophosphorus herbicides
109-52-4D, Valeric acid, salts, mixts. with organophosphorus herbicides
110-15-6D, Succinic acid, salts, mixts. with organophosphorus herbicides
110-17-8D, Fumaric acid, salts, mixts. with organophosphorus herbicides
118-92-3D, Anthranilic acid, salts, mixts. with organophosphorus
herbicides 123-76-2D, Levulinic acid, salts, mixts. with
organophosphorus herbicides 127-17-3D, Pyruvic acid, salts, mixts. with
organophosphorus herbicides 138-59-0D, Shikimic acid, salts, mixts. with
organophosphorus herbicides 139-12-8D, Aluminum acetate, mixts.
141-82-2D, Malonic acid, salts, mixts. with organophosphorus herbicides
143-07-7D, Lauric acid, salts, mixts. with organophosphorus herbicides
144-62-7D, Oxalic acid, salts, mixts. with organophosphorus herbicides
147-85-3D, Proline, salts, mixts. with organophosphorus herbicides
156-06-9D, Phenylpyruvic acid, salts, mixts. with organophosphorus
herbicides 156-38-7D, p-Hydroxyphenylacetic acid, salts, mixts. with
organophosphorus herbicides 298-12-4D, ..alpha.-Ketoacetic acid, salts,
mixts. with organophosphorus herbicides 299-28-5D, Calcium gluconate,
mixts. 328-50-7D, 2-Oxoglutaric acid, salts, mixts. with
organophosphorus herbicides 372-75-8D, Citrulline, salts, mixts. with
organophosphorus herbicides 451-13-8D, Homogentisic acid, salts, mixts.
with organophosphorus herbicides 471-34-1D, Calcium carbonate, mixts.
473-81-4D, Glyceric acid, salts, mixts. with organophosphorus herbicides
490-79-9D, Gentisic acid, salts, mixts. with organophosphorus herbicides
501-52-0D, Benzenepropanoic acid, salts, mixts. with organophosphorus
herbicides 506-85-4D, Fulminic acid, salts, mixts. 512-25-4D, Barium
citrate, mixts. with organophosphorus herbicides 526-95-4D, Gluconic
acid, salts, mixts. with organophosphorus herbicides 535-75-1D,
Pipelicolic acid, salts, mixts. 541-50-4D, Acetoacetic acid, salts, mixts.
with organophosphorus herbicides 542-32-5D, ..alpha.-Aminoadipic acid,
salts, mixts. with organophosphorus herbicides 542-78-9D, Malonaldehyde,
salts, mixts. with organophosphorus herbicides 546-93-0D, Magnesium
carbonate, mixts. 552-63-6D, Tropic acid, salts, mixts. with
organophosphorus herbicides 567-36-2D, 3-Hydroxyproline, salts, mixts.
with organophosphorus herbicides 591-64-0D, Calcium levulinate, mixts.
672-15-1D, Homoserine, salts, mixts. with organophosphorus herbicides
759-05-7D, 2-Oxoisovaleric acid, salts, mixts. with organophosphorus
herbicides 814-80-2D, Calcium lactate, mixts. 816-66-0D,

2-Oxoisocaproic acid, salts, mixts. with organophosphorus herbicides
824-35-1D, Calcium salicylate, mixts. with organophosphorus herbicides,
mixts. 1071-83-6D, Glyphosate, mixts. contg. herbicide and its salts
1113-60-6D, Hydroxypyruvic acid, salts, mixts. with organophosphorus
herbicides 1305-62-0D, Calcium hydroxide, mixts. with organophosphorus
herbicides 1309-42-8D, Magnesium hydroxide, mixts. with organophosphorus
herbicides 1460-34-0D, 2-Oxo-3-methylvaleric acid, salts, mixts. with
organophosphorus herbicides 2090-05-3D, Calcium benzoate, mixts.
2414-98-4D, Magnesium ethoxide, mixts. with organophosphorus herbicides
2439-99-8D, Glyphosine, mixts. contg. herbicide and its salts
2466-09-3D, Diphosphoric acid, salts, mixts. 3164-34-9D, Calcium
tartrate, mixts., biological studies 3184-35-8D, .alpha.-Ketoadipic
acid, salts, mixts. with organophosphorus herbicides 3486-35-9D, Zinc
carbonate, mixts. 3909-12-4D, Threonic acid, salts, mixts. with
organophosphorus herbicides 4075-81-4D, Calcium propionate, mixts.
6303-21-5D, Phosphinic acid, salts, mixts. 6556-12-3D, Glucuronic acid,
salts, mixts. with organophosphorus herbicides 6667-60-3D,
.beta.-Methylaspartic acid, salts, mixts. with organophosphorus herbicides
6915-15-7D, Malic acid, salts, mixts. with organophosphorus herbicides
7230-93-5D, Aluminum laurate, mixts. 7429-90-5D, Aluminum, salts, mixts.
with organophosphorus herbicides, biological studies 7439-89-6D, Iron,
salts, mixts. with organophosphorus herbicides, biological studies
7439-95-4D, Magnesium, salts, mixts. with organophosphorus herbicides,
biological studies 7440-39-3D, Barium, salts, mixts. with
organophosphorus herbicides, biological studies 7440-66-6D, Zinc, salts,
mixts. with organophosphorus herbicides, biological studies 7440-70-2D,
Calcium, salts, mixts. with organophosphorus herbicides, biological
studies 7446-70-0D, Aluminum chloride, mixts. 7487-88-9D, Magnesium
sulfate, mixts. 7646-85-7D, Zinc chloride, mixts. 7693-13-2D, Calcium
citrate, mixts. with organophosphorus herbicides 7705-08-0D, Iron(III)
chloride, mixts. 7720-78-7D, Ferrous sulfate, mixts. 7733-02-0D, Zinc
sulfate, mixts. **7757-93-9D, Calcium hydrogen phosphate**
, mixts. 7758-94-3D, Iron(II) chloride, mixts. 7778-18-9D, Calcium
sulfate, mixts. 7779-25-1D, Magnesium citrate, mixts. with
organophosphorus herbicides 7779-88-6D, Zinc nitrate, mixts.
7779-90-0D, Zinc **phosphate**, mixts. 7784-25-0D, Ammonium
aluminum sulfate, mixts. with organophosphorus herbicides 7786-30-3D,
Magnesium chloride, mixts. 7789-79-9D, Phosphinic acid, calcium salt,
mixts. 9005-32-7D, Alginic acid, salts, mixts. with organophosphorus
herbicides 9012-76-4D, Chitosan, mixts. with organophosphorus herbicides
10028-22-5D, Ferric sulfate, mixts. 10043-01-3D, Aluminum sulfate,
mixts. 10043-01-3D, Alum, mixts. with organophosphorus herbicides
10043-52-4D, Calcium chloride, mixts. 10124-37-5D, Calcium nitrate,
mixts. 10257-55-3D, Calcium sulfite, mixts. 10377-60-3D, Magnesium
nitrate, mixts. 10402-24-1D, Iron **phosphate**, mixts.
11113-66-9D, Iron hydroxide, mixts. with organophosphorus herbicides
13473-90-0D, Aluminum nitrate, mixts. **13598-36-2D, Phosphonic**
acid, esters, salts, mixts. with organophosphorus herbicides
14104-77-9D, Iron nitrate, mixts. 14455-29-9D, Aluminum carbonate,
mixts. 14866-19-4D, Calcium dihydrogen pyrophosphate, mixts.
15007-61-1D, Potassium aluminum sulfate, mixts. with organophosphorus
herbicides **15099-32-8D, Phosphonic acid, aluminum salt, mixts.**
15479-57-9D, Aluminum salicylate, mixts. with organophosphorus herbicides
17194-00-2D, Barium hydroxide, mixts. with organophosphorus herbicides
18917-91-4D, Aluminum lactate, mixts. 18917-93-6D, Magnesium lactate,
mixts. 20196-46-7D, Sulfoxylic acid, salts, mixts. 20246-53-1D,
Gulonic acid, salts, mixts. with organophosphorus herbicides
20427-58-1D, Zinc hydroxide, mixts. with organophosphorus herbicides
21645-51-2D, Aluminum hydroxide, mixts. with organophosphorus herbicides
25493-06-5D, Phosphonic acid, calcium salt, mixts. 30581-89-6D,
Imidazoleacetic acid, salts, mixts. with organophosphorus herbicides
31142-56-0D, Aluminum citrate, mixts. with organophosphorus herbicides
32378-14-6D, mixts. 33239-40-6D, ..alpha.-Ketosuccinamic acid, salts,

mixts. with organophosphorus herbicides 34296-08-7D, Barium isopropyl **phosphate**, mixts. with organophosphorus herbicides 35597-43-4D, Bialaphos, mixts. contg. herbicide and its salts 36413-60-2D, Quinic acid, mixts. with organophosphorus herbicides 39148-24-8D, Fosetyl Al, mixts. 51276-47-2D, Glufosinate, mixts. contg. herbicide and its salts 53500-11-1D, mixts. with organophosphorus herbicides 61114-26-9D, mixts. with organophosphorus herbicides 65644-56-6D, Calcium glycerate, mixts. 77760-97-5D, Aluminum acetoacetate, mixts. with organophosphorus herbicides 106145-21-5D, mixts. 130752-20-4D, mixts. 207671-14-5D, mixts. with organophosphorus herbicides 207671-76-9D, mixts. with organophosphorus herbicides 207671-77-0D, mixts. with organophosphorus herbicides

RL: AGR (Agricultural use); BUU (Biological use, unclassified);

BIOL (Biological study); USES (Uses)

(weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

IT 100-42-5D, Styrene, sulfonated, sodium salts 8061-51-6, Sodium ligninsulfonate 9038-56-6, Styrene-sodium maleate copolymer 37307-94-1, Formaldehyde-phenolsulfonic acid polymer, sodium salt

RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA

(Modifier or additive use); BIOL (Biological study); USES (Uses)

(weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Monsanto Company; JP 06256121 A HCAPLUS
- (2) Monsanto Company; CA 2101669 A1 HCAPLUS
- (3) Monsanto Company; NZ 248289 A
- (4) Monsanto Company; US 5612285 A HCAPLUS
- (5) Monsanto Company; US 5693593 A HCAPLUS
- (6) Monsanto Company; AU 668190 B HCAPLUS
- (7) Monsanto Company; EP 582561 A1 1994 HCAPLUS
- (8) Safer Inc; JP 06501484 A
- (9) Safer Inc; CA 2095341 C HCAPLUS
- (10) Safer Inc; NZ 240435 A
- (11) Safer Inc; EP 556283 A1 HCAPLUS
- (12) Safer Inc; AU 648622 B HCAPLUS
- (13) Safer Inc; WO 9207467 A1 1992 HCAPLUS
- (14) Sankyo Company Limited; JP 10273406 A HCAPLUS
- (15) Sankyo Company Limited; JP 10273407 A HCAPLUS
- (16) Sankyo Company Limited; EP 945065 A1 HCAPLUS
- (17) Sankyo Company Limited; WO 9819544 A1 1998 HCAPLUS
- (18) Sumitomo Chemical Company Limited; JP 01157096 A 1989

IT 7757-93-9D, Calcium hydrogen **phosphate**, mixts. 13598-36-2D, Phosphonic acid, esters, salts, mixts. with organophosphorus herbicides 15099-32-8D, Phosphonic acid, aluminum salt, mixts. 25493-06-5D, Phosphonic acid, calcium salt, mixts.

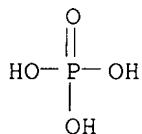
RL: AGR (Agricultural use); BUU (Biological use, unclassified);

BIOL (Biological study); USES (Uses)

(weed growth-inhibiting **formulations** contg. nonselective organophosphorus herbicides)

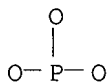
RN 7757-93-9 HCAPLUS

CN Phosphoric acid, calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



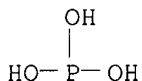
● Ca

RN 13598-36-2 HCAPLUS
CN Phosphonic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



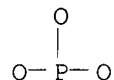
*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 15099-32-8 HCAPLUS
CN Phosphorous acid, aluminum salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Al

RN 25493-06-5 HCAPLUS
CN Phosphonic acid, calcium salt (8CI, 9CI) (CA INDEX NAME)



●x Ca

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

L119 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:772517 HCAPLUS
DN 132:9946
TI Agrochemical **compositions** containing N-(phosphonomethyl)glycine
and metal salts and their use as plant growth-suppressing agents
IN Amagasa, Tadashi; Horibe, Yoshimichi
PA Sankyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A01N057-20
ICS A01N025-32; A01N037-42; A01N043-40; A01N043-58; A01N043-653;

A01N043-70; A01N047-02; A01N047-04; A01N047-06; A01N033-12;
A01N043-08; A01N043-50; A01N043-54

CC 5-3 (**Agrochemical** Bioregulators)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11335214	A2	19991207	JP 1998-139554	19980521 <--
PRAI	JP 1998-139554		19980521 <--		
AB	<p>The compns. contain N-(phosphonomethyl)glycine (I) and/or its salts, (1) .gtoreq.1 selected from Ca, Mg, Al, Ba, Fe, and Zn salts of H₂CO₃, hydrohalogenic acids, and B, N, P, or S-contg. inorg. acids [except Al(NO₃)₃ and CaHPO₃], hydroxides of Ca, Mg, Al, Ba, Fe, and Zn, alum [except NH₄Al(SO₄)₂ and KAl(SO₄)₂], pseudo-alum, Ca, Mg, Al, Ba, Fe, and Zn salts of C₂-12 amino acids, Ca, Mg, Al, Ba, Fe, and Zn salts of C₂-30 (un)satd. chain monocarboxylic acids (except HCO₂H, AcOH, propionic acid, lactic acid, levulinic acid, and ascorbic acid) which may be substituted with 1-5 OH, CHO, oxo, Ph having optional 1-3 OH, 5-membered heterocyclyl, Ca, Mg, Al, Ba, Fe, and Zn salts of C₂-30 (un)satd. dicarboxylic acids (except alginic acid) which may be substituted with 1-5 substituents given above, Ca, Mg, Al, Ba, Fe, and Zn salts of C₅-6 cycloalkanecarboxylic acids which may be substituted with 1-4 OH, Ca, Mg, Al, Ba, Fe, and Zn salts of glyoxylic acid, Ca, Mg, Al, Ba, Fe, and Zn salts of benzoic acid substituted with 1-3 OH or NH₂ (except salicylic acid), and Ca, Mg, Al, Ba, Fe, and Zn salts of 5-6-membered mono- or dicarboxylic acids which may be substituted with 1-3 lower alkyl and/or OH, and optionally (2) .gtoreq.1 selected from plant growth regulators, microbicides (ergosterol biosynthesis inhibitors), mefluidide, atrazine, pyridate, and clopyralid. The compns. show no herbicidal action and only suppress growth of plant, and are applied to slope and levee to prevent excess erosion of soil. Application of a spray contg. 1000 ppm I isopropylamine salt (II) and 152 ppm (as Al) Al laurate to Sorghum halepense, Lolium multiflorum, Poa annua, etc., suppressed length of the aerial parts at 90-99% suppression rate, while application of II alone completely killed the weeds. Agrochem. formulations were also given.</p>				
ST	weed growth suppressing agent glyphosate combination metal salt; aluminum laurate glyphosate weed growth suppressing agent				
IT	<p>Herbicides Weed control (weed growth-suppressing agents contg. glyphosate and salts of Ca, Mg, Al, Ba, Fe, or Zn)</p>				
IT	<p>57-87-4, Ergosterol RL: BSU (Biological study, unclassified); BIOL (Biological study) (biosynthesis inhibitors, microbicides; weed growth-suppressing agents contg. glyphosate and salts of Ca, Mg, Al, Ba, Fe, or Zn)</p>				
IT	<p>123-33-1, Maleic hydrazide 28382-15-2, Maleic hydrazide potassium salt RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (weed growth-suppressing agents contg. glyphosate and salts of Ca, Mg, Al, Ba, Fe, or Zn)</p>				
IT	<p>299-28-5, Calcium gluconate 471-34-1, Calcium carbonate, biological studies 546-93-0, Magnesium carbonate 1071-83-6, Glyphosate 1702-17-6, Clopyralid 1912-24-9, Atrazine 3164-34-9, Calcium tartrate, biological studies 3486-35-9, Zinc carbonate 7230-93-5, Aluminum laurate 7446-70-0, Aluminum chloride, biological studies 7487-88-9, Magnesium sulfate, biological studies 7646-85-7, Zinc chloride, biological studies 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate 7757-93-9, Calcium hydrogen phosphate 7758-23-8, Calcium bis(dihydrogen phosphate) 7758-94-3, Ferrous chloride 7778-18-9, Calcium sulfate 7779-88-6, Zinc nitrate 7779-90-0, Zinc phosphate 7786-30-3, Magnesium chloride, biological studies 10028-22-5, Ferric sulfate 10043-01-3, Aluminum sulfate 10043-52-4, Calcium chloride, biological studies 10124-37-5, Calcium nitrate 10257-55-3, Calcium sulfite 10377-60-3, Magnesium nitrate 10402-24-1, Iron phosphate 10421-48-4, Ferric</p>				

nitrate 13718-65-5, Iron potassium alum 14104-77-9, Iron nitrate 14455-29-9, Aluminum carbonate 14866-19-4, Calcium dihydrogen pyrophosphate 15099-32-8, Aluminum phosphite 21056-98-4 21293-29-8, Absciscic acid 32378-14-6 38641-94-0, Glyphosate isopropylamine salt 53780-34-0, Mefluidide 55512-33-9, Pyridate 56425-91-3, Flurprimidol 65644-56-6, Calcium glycerate 76738-62-0, Paclobutrazol 95266-40-3, Trinexapac-ethyl 127277-53-6, Prohexadione calcium 130183-88-9 130752-20-4

RL: **AGR (Agricultural use)**; BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(weed growth-suppressing agents contg. glyphosate and salts of Ca, Mg, Al, Ba, Fe, or Zn)

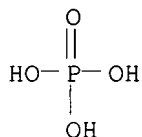
IT 7757-93-9, Calcium hydrogen **phosphate** 7758-23-8, Calcium bis(dihydrogen **phosphate**) 15099-32-8, Aluminum phosphite 21056-98-4

RL: **AGR (Agricultural use)**; BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(weed growth-suppressing agents contg. glyphosate and salts of Ca, Mg, Al, Ba, Fe, or Zn)

RN 7757-93-9 HCAPLUS

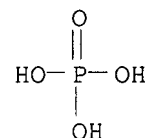
CN Phosphoric acid, calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

RN 7758-23-8 HCAPLUS

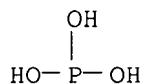
CN Phosphoric acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)



● 1/2 Ca

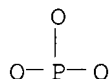
RN 15099-32-8 HCAPLUS

CN Phosphorous acid, aluminum salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Al

RN 21056-98-4 HCAPLUS
 CN Phosphonic acid, calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

L119 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:582917 HCAPLUS

DN 129:202483

TI Plant fertilizer **compositions** containing **phosphonate**
 and **phosphate** salts and derivatives thereof

IN Taylor, John B.

PA Foliar Nutrients, Inc., USA

SO U.S., 6 pp., Cont.-in-part of U. S. 5,736,164.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N059-26

ICS C05B007-00; C05G003-00; C05G003-02

NCL 424601000

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 5800837	A	19980901	US 1997-812865	19970306	<--
	US 5736164	A	19980407	US 1996-705594	19960830	<--
	AU 9744953	A1	19990412	AU 1997-44953	19970919	<--
	AU 741341	B2	20011129			
	NZ 503394	A	20020301	NZ 1997-503394	19970919	<--
	WO 9838863	A1	19980911	WO 1998-US3459	19980224	<--
	W:					
	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,					
	DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,					
	KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,					
	NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,					
	UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,					
	FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,					
	GA, GN, ML, MR, NE, SN, TD, TG					
	AU 9861809	A1	19980922	AU 1998-61809	19980224	<--
	AU 749891	B2	20020704			
	US 5997910	A	19991207	US 1998-109139	19980702	<--
	US 6338860	B1	20020115	US 1999-419127	19991015	<--
	US 2002048609	A1	20020425	US 2001-954926	20010918	<--
	US 6509041	B2	20030121			
	US 2002193351	A1	20021219	US 2001-17687	20011030	<--
PRAI	US 1996-705594	A2	19960830			<--
	US 1997-812865	A	19970306			<--
	US 1997-881968	B2	19970625			<--
	WO 1997-US16997	A	19970919			<--
	WO 1998-US3459	W	19980224			<--
	US 1998-109139	A2	19980702			<--
	US 1999-387100	A2	19990831			<--
	US 1999-419127	A3	19991015			<--

US 2000-702417 A2 20001031

AB The **compn.** provides a single product which may be employed to stimulate the growth response in plants. Application of the **compn** . eliminates the pathol. acerbation of Ascomycete, caused by **phosphonates** applied by themselves.

ST fertilizer **compn phosphonate phosphate**

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer **compns.** contg. **phosphonate** and **phosphate** salts)

IT 7664-38-2D, **Phosphoric** acid, salts, biological studies

7758-11-4, Dipotassium **phosphate** 7778-53-2,

Tripotassium **phosphate** 7778-77-0, Monopotassium

phosphate 13492-26-7, DiPotassium **phosphonate**

13598-36-2D, Phosphonic acid, salts 13977-65-6,

MonoPotassium **phosphonate** 17466-29-4, Phosphonic acid, potassium salt

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer **compns.** contg. **phosphonate** and **phosphate** salts)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Barlet; US 4935410 1990 HCAPLUS
- (2) Barlet; US 5070083 1991 HCAPLUS
- (3) Barr; US 5133891 1992 HCAPLUS
- (4) Collins; US 5206228 1993 HCAPLUS
- (5) Corbet; US 4755614 1988 HCAPLUS
- (6) Ducret; US 4139616 1979 HCAPLUS
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- (8) Fred, A; Transition of Phosphite to Phosphate in Soils 1952, P361
- (9) George, M; Journal of Bacteriology 1966, P578
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- (11) Greiner; US 5124344 1992 HCAPLUS
- (12) Greiner; US 5246953 1993 HCAPLUS
- (13) Greiner; US 5290791 1994 HCAPLUS
- (14) Greiner; US 5358958 1994 HCAPLUS
- (15) Guest, D; Australasian Plant Pathology 1990, V19(4), P113
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- (18) Horriere; US 4806445 1989 HCAPLUS
- (19) Horriere; US 5169646 1992 HCAPLUS
- (20) Lacroix; US 4542023 1985 HCAPLUS
- (21) Lovatt; US 5514200 1996 HCAPLUS
- (22) Parham; US 3798020 1974 HCAPLUS
- (23) Pepin; US 5342835 1994 HCAPLUS
- (24) Rippey; US 1935599 1933 HCAPLUS
- (25) Robertson, H; Archives of Biochemistry and Biophysics, The Merck Index, 11th Edition 1989, P380
- (26) Staub; US 4849219 1989 HCAPLUS
- (27) Thizy; US 4075324 1978 HCAPLUS
- (28) Thizy; US 4119724 1978 HCAPLUS
- (29) Vetanovetz; US 5395418 1995 HCAPLUS
- (30) Widdowson, P; New Zealand Journal of Science 1964, P427

IT 7664-38-2D, **Phosphoric** acid, salts, biological studies

7758-11-4, Dipotassium **phosphate** 7778-53-2,

Tripotassium **phosphate** 7778-77-0, Monopotassium

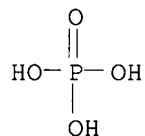
phosphate 13492-26-7, DiPotassium **phosphonate**

13598-36-2D, Phosphonic acid, salts 13977-65-6,

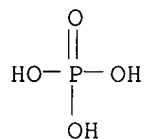
MonoPotassium **phosphonate** 17466-29-4, Phosphonic acid, potassium salt

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer **compns.** contg. **phosphonate** and **phosphate** salts)

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (7CI, 8CI, 9CI) (CA INDEX NAME)

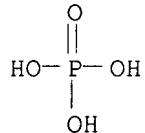


RN 7758-11-4 HCAPLUS
CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



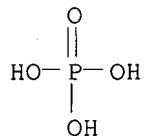
● 2 K

RN 7778-53-2 HCAPLUS
CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



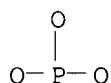
● 3 K

RN 7778-77-0 HCAPLUS
CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

RN 13492-26-7 HCAPLUS
CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

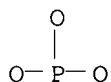


●2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13598-36-2 HCAPLUS

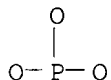
CN Phosphonic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 13977-65-6 HCAPLUS

CN Phosphonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

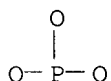


● K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 17466-29-4 HCAPLUS

CN Phosphonic acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

L119 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:214296 HCAPLUS

DN 128:254062

TI Fungicidal **compositions** for plants containing
phosphonate and **phosphate** saltsIN **Taylor, John B.**

PA USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N059-26

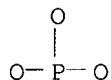
NCL 424601000

CC 5-2 (Agrochemical Bioregulators)

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5736164	A	19980407	US 1996-705594	19960830 <--
	US 5800837	A	19980901	US 1997-812865	19970306 <--
	WO 9915017	A1	19990401	WO 1997-US16997	19970919 <--
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	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9744953	A1	19990412	AU 1997-44953	19970919 <--
	AU 741341	B2	20011129		
	NZ 503394	A	20020301	NZ 1997-503394	19970919 <--
	US 5925383	A	19990720	US 1997-943002	19971002 <--
	US 5997910	A	19991207	US 1998-109139	19980702 <--
	US 6338860	B1	20020115	US 1999-419127	19991015 <--
	US 2002048609	A1	20020425	US 2001-954926	20010918 <--
	US 6509041	B2	20030121		
	US 2002193351	A1	20021219	US 2001-17687	20011030 <--
PRAI	US 1996-705594	A2	19960830 <--		
	US 1997-812865	A3	19970306 <--		
	US 1997-881968	B2	19970625 <--		
	WO 1997-US16997	A	19970919 <--		
	US 1998-109139	A2	19980702 <--		
	US 1999-387100	A2	19990831 <--		
	US 1999-419127	A3	19991015 <--		
	US 2000-702417	A2	20001031		
AB	The title compn. provides a single product which may be employed to control parasitic fungi in plants. It eliminates the phosphonate -induced pathol. acerbation of Ascomycete fungal infections. The compn. comprises K ₂ HPO ₄ , KH ₂ PO ₄ or K ₃ PO ₄ in combination with K ₂ HPO ₃ , KH ₂ PO ₃ or K ₃ PO ₃ .				
ST	fungicide potassium phosphonate phosphate				
IT	Fungicides				
	(agrochem.; compn. contg. potassium phosphonate and phosphate)				
IT	205241-87-8				
	RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fungicidal compn. for plants)				
IT	7758-11-4D , Dipotassium phosphate , mixts. with potassium phosphonates 7778-53-2D , Tripotassium phosphate , mixts. with potassium phosphonates 7778-77-0D , Monopotassium phosphate , mixts. with potassium phosphonates 13492-26-7D , Dipotassium phosphonate , mixts. with potassium phosphates 13977-65-6D , Monopotassium phosphonate , mixts. with potassium phosphates 41607-57-2D , mixts. with potassium phosphates				
	RL: AGR (Agricultural use) ; BIOL (Biological study); USES (Uses) (fungicidal compns. for plants)				
IT	205241-87-8				
	RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fungicidal compn. for plants)				
RN	205241-87-8 HCAPLUS				
CN	Phosphoric acid, dipotassium salt, mixt. with potassium hydrogen phosphonate (9CI) (CA INDEX NAME)				

CRN 13977-65-6
CMF H3 O3 P . K

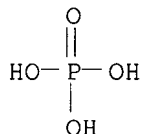


● K

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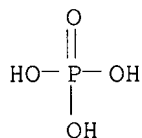
CM 2

CRN 7758-11-4
CMF H3 O4 P . 2 K



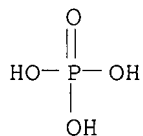
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IT 7758-11-4D, Dipotassium phosphate, mixts. with potassium phosphonates 7778-53-2D, Tripotassium phosphate, mixts. with potassium phosphonates 7778-77-0D, Monopotassium phosphate, mixts. with potassium phosphonates 13492-26-7D, Dipotassium phosphonate, mixts. with potassium phosphates 13977-65-6D, Monopotassium phosphonate, mixts. with potassium phosphates 41607-57-2D, mixts. with potassium phosphates
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fungicidal compns. for plants)
RN 7758-11-4 HCAPLUS
CN Phosphoric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



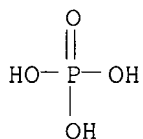
● 2 K

RN 7778-53-2 HCAPLUS
CN Phosphoric acid, tripotassium salt (8CI, 9CI) (CA INDEX NAME)



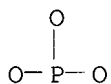
● 3 K

RN 7778-77-0 HCAPLUS
CN Phosphoric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

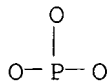
RN 13492-26-7 HCAPLUS
CN Phosphonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

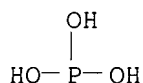
RN 13977-65-6 HCAPLUS
CN Phosphonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 41607-57-2 HCAPLUS
CN Phosphorous acid, tripotassium salt (9CI) (CA INDEX NAME)



● 3 K

L119 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:509045 HCAPLUS

DN 127:148720

TI Manufacture of **phosphate** fertilizers fixed in carbonized hull

IN Igami, Chie

PA Igami, Chie, Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C05B013-00

ICS C05G001-00

CC 19-6 (**Fertilizers**, Soils, and Plant Nutrition)

Section cross-reference(s): 49

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09194277	A2	19970729	JP 1996-22116	19960112 <--
PRAI	JP 1996-22116		19960112 <--		

AB The title fertilizers are manufd. by impregnating .apprx.50-90 wt. parts hull with .apprx.10-50 wt. parts **phosphate** salts and AcOH contg. small amt. of H3PO4, then heating the impregnated hull under anaerobic conditions to carbonize the hull, to thermolyze/polymerize the **phosphate** salts, and to fix the resulting sol. polyphosphates in the formed C matrixes **simultaneously**. The polyphosphates are not absorbed or fixed by Fe or Al in soils, thus showing high utilization rate. Since the carbonized hull is porous, it also improves water permeability and water holding ability of soils.

ST polyphosphate manuf fertilizer fixation carbonized hull; acetate **phosphate** polymn hull carbonization fertilizer

IT Rice (Oryza sativa)
(husk; manuf. of **phosphate** fertilizers fixed in carbonized hull)

IT **Phosphates**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(in manuf. of **phosphate** fertilizers fixed in carbonized hull)

IT Immobilization, biochemical
(manuf. of **phosphate** fertilizers fixed in carbonized hull)

IT **Fertilizers**
RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(phosphorus; manuf. of **phosphate** fertilizers fixed in carbonized hull)

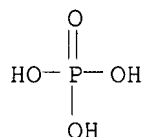
IT Chaff
(rice husk; manuf. of **phosphate** fertilizers fixed in carbonized hull)

IT Polyphosphates
RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sol.; manuf. of **phosphate** fertilizers fixed in carbonized hull)

IT **Soil amendments**

(water-retaining; polyphosphate fertilizers fixed in carbonized hull as)

IT 10043-83-1, Magnesium **phosphate**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in manuf. of **phosphate** fertilizers fixed in carbonized hull)
 IT 7440-44-0, Carbon, biological studies
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (manuf. of **phosphate** fertilizers fixed in carbonized hull)
 IT 10043-83-1, Magnesium **phosphate**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in manuf. of **phosphate** fertilizers fixed in carbonized hull)
 RN 10043-83-1 HCAPLUS
 CN Phosphoric acid, magnesium salt (8CI, 9CI) (CA INDEX NAME)



●x Mg

=> fil wpix

FILE 'WPIX' ENTERED AT 10:25:33 ON 27 MAR 2003
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 MOST RECENT DERWENT UPDATE: 200320 <200320/DW>
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 /BIX is also provided which comprises both /BI and /ABEX <<<

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 GUIDES, PLEASE VISIT:
http://www.derwent.com/userguides/dwpi_guide.html <<<

=> d all abeq tech tot

L154 ANSWER 1 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 2002-608357 [65] WPIX

DNC C2002-171959

TI Composition useful for preventing and controlling fungicidal and bacterial
 diseases in plants comprises a phosphonate salt, a phosphate salt and a
 metal chelate.

DC C01

IN TAYLOR, J B

PA (FOLI-N) **FOLIAR NUTRIENTS INC**

CYC 95

PI WO 2002056680 A2 20020725 (200265)* EN 42p A01N000-00 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

ADT WO 2002056680 A2 WO 2001-US45376 20011031

PRAI US 2000-702417 20001031

IC ICM **A01N000-00**

AB WO 200256680 A UPAB: 20021010

NOVELTY - A composition comprises at least one phosphonate salt, at least one phosphate salt and at least one metal chelate.

DETAILED DESCRIPTION - A composition (C1) comprises:

- (1) at least one first salt of formula (I);
- (2) at least one second salt of formula (II) or of formula (III); and
- (3) at least one metal chelate in which the metal is selected from

row 4 or 5 of the periodic table of the elements.

R1 = H, K, 1-4C alkyl, halogen-substituted alkyl or nitro-substituted alkyl, alkenyl, halogen substituted alkenyl, alkynyl, halogen-substituted alkynyl, alkoxy-substituted alkyl or ammonium substituted by alkyl or hydroxy;

R2, R3 = H or K;

Me = K, alkaline earth metal cation, aluminum atom or an ammonium cation; and

n = 1 - 3.

INDEPENDENT CLAIMS are also included for the following:

(1) A method (I) of controlling fungicidal and/or bactericidal disease in plants involving applying to the plants an aqueous composition comprising an aqueous solution of H₃PO₃ and KOH, an aqueous solution of monopotassium phosphate and KOH or an aqueous solution of dipotassium phosphate and at least one metal chelate selected from row 4 or 5 of the periodic table of the elements; and

(2) A method (II) of controlling fungicidal and/or bactericidal disease in plants involving applying to the plants a composition (C2) comprising at least one metal chelate, at least one phosphate salt and at least one phosphonate salt in an aqueous solution.

ACTIVITY - Antibacterial; Fungicide.

MECHANISM OF ACTION - None given.

USE - For preventing and controlling fungicidal and bacterial diseases caused by phytophthora such as Phytophthora infestans in plants e.g. tomato and potato species (claimed).

ADVANTAGE - The compositions provide improved efficacy in controlling fungus and bacterial infections in plants, without the attendant phytotoxicity. The compositions are environmentally safe, comparatively inexpensive to use and have low mammalian toxicity. The composition provides a synergistic effect, which prevents the infection by at least 100%.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: **C05-A01A**; C05-A01B; C05-A03A; C05-B02A2; **C05-B02A3**
; C10-B01B; C14-A01; C14-A04

TECH UPTX: 20021010

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The metal chelate of (C1) and (C2) is present in an aqueous solution in an amount of 0.01 - 2 (preferably 0.01 - 0.8) pounds AI per acre. The metal chelates have a solubility of 100% where at least 80 pounds of the metal chelates are dissolved in water (100 gallons) at 50 degrees C. The metal chelates are added as aqueous solutions, which contain 1 - 5 wt.% of the metal chelates. The metal chelate is Cu-EDDHA (ethylenediamine-di-o-

hydroxyphenylacetic acid), Cu-para-EDDHA and/or Cu-EDDHMA (ethylenediamine-di-o-hydroxyphenylmethylacetic acid). The chelate constituents are selected from para-EDDHA, EDDHA or EDDHMA. The metal chelate of (C2) is selected from the 4th row of the periodic table. The metal chelate of the aqueous composition in (I) is present in an amount of 0.01 - 2 pounds AI per acre. (C1) and (C2) are in an aqueous solution, where the first and second salts are present in the aqueous solution in an amount of 0.1 - 1000 (preferably 20 - 200) millimolar. The weight ratio of the first and the second salt is 1:0.001 - 1:1000.

TECHNOLOGY FOCUS - AGRICULTURE - Preferred Composition: In (I), the amount of potassium phosphonate in the aqueous solution and the amount of potassium phosphate in the aqueous solution is present in an amount of 0.1 - 1000 millimolar and the weight ratio is 1:0.001 - 1:1000.

L154 ANSWER 2 OF 10 WPIX (C) 2003 THOMSON DERWENT
 AN 2001-355050 [37] WPIX
 DNC C2001-109926
 TI Plant fungicide composition effective against Phycomycetes and Ascomycetes, comprises potassium or ammonium phosphonate salt(s) and potassium or ammonium phosphate salt(s).
 DC C01
 IN **TAYLOR, J B**
 PA (FOLI-N) **FOLIAR NUTRIENTS INC**
 CYC 90
 PI WO 2001028334 A1 20010426 (200137)* EN 20p A01N057-00 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TZ UG ZW
 W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
 TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 AU 2000077282 A 20010430 (200148) A01N057-00 <--
 ADT WO 2001028334 A1 WO 2000-US26666 20000928; AU 2000077282 A AU 2000-77282 20000928
 FDT AU 2000077282 A Based on WO 200128334
 PRAI US 1999-418813 19991015
 IC ICM **A01N057-00**
 ICS **A01N057-10; A01N057-18; A01N059-26**
 AB WO 200128334 A UPAB: 20010704
 NOVELTY - A plant fungicide composition (I) comprises:
 (a) at least one of K₂HPO₃, KH₂PO₃, K₃PO₃, (NH₄)₂HPO₃ and (NH₄)H₂PO₄ (i.e. mono-, di- or tripotassium or mono- or diammonium phosphonate); and
 (b) K₂HPO₄, KH₂PO₄, K₃PO₄, (NH₄)₂HPO₄ or (NH₄)H₂PO₄ (i.e. mono-, di- or tripotassium or mono- or diammonium phosphate).
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an alternative form of (I), comprising:
 (a) at least one phosphonate salt of formula (II); and
 (b) a salt of formula (III):
 R₁ = H, K, 1-4C alkyl, haloalkyl, nitroalkyl, alkenyl, haloalkenyl, alkynyl, haloalkynyl, alkoxyalkyl or ammonium substituted by alkyl or hydroxyalkyl;
 R₂, R₃ = H or K;
 M = K, alkaline earth metal, Al or ammonium; and
 n = 1-3 (i.e. the valency of M).
 ACTIVITY - Fungicide; pesticide; fertilizer.
 In tests against *Alternaria dauci* in carrot plants, the average degree of infection was 28.8 % after treatment with 1 % potassium phosphonate (KH₂PO₃) solution, 10.7 % after treatment with 0.5 % potassium phosphonate/0.5 % potassium phosphate (K₂HPO₄) solution and 34.8 % in untreated controls.
 MECHANISM OF ACTION - None given.
 USE - For protecting plants against fungal attack, especially by Phycomycetes and Ascomycetes fungi. The plants to be protected include

fruit crops, agronomic crops, ornamentals, trees, grasses, vegetables, grains, flowers and some aquatic crops (e.g. watercress), but are especially citrus and fruit trees or vines.

ADVANTAGE - (I) provides protection against both Phycomycetes and Ascomycetes fungi from a single composition; does not cause pathological acerbation of Ascomycetes fungi; is environmentally safe and inexpensive to use; and has low mammalian toxicity. (I) may also show biocidal, arthropod pest controlling and fertilizing effects.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: **C05-A01A**; C05-A01B; C05-B01P; C05-B02A2; **C05-B02A3**
; C14-A06

TECH UPTX: 20010704

TECHNOLOGY FOCUS - AGRICULTURE - Preferred Composition: (I) comprises an aqueous solution, containing each of (a) and (b) at 20 mM to 5 % v/v. The weight ratio of (a) to (b) is 1 : 0.001-1000.

L154 ANSWER 3 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 2001-290777 [30] WPIX

CR 1998-239160 [21]; 1998-494717 [42]; 1999-418254 [35]; 2000-095913 [08]

DNC C2001-089169

TI Plant fungicide composition effective against Phytophthora, especially late blight, containing potassium or ammonium phosphonate salt(s) and potassium or ammonium phosphate salt(s).

DC C01

IN **TAYLOR, J B**

PA (FOLI-N) **FOLIAR NUTRIENTS INC**; (TAYL-I) TAYLOR J B

CYC 92

PI WO 2001028335 A1 20010426 (200130)* EN 23p A01N057-00 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001014935 A 20010430 (200148) A01N057-00 <--

US 6338860 B1 20020115 (200208) A01N059-26 <--

US 2002048609 A1 20020425 (200233) A01N057-00 <--

EP 1221850 A1 20020717 (200254) EN A01N057-00 <--

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

US 6509041 B2 20030121 (200309) A01N059-26 <--

ADT WO 2001028335 A1 WO 2000-US41021 20000928; AU 2001014935 A AU 2001-14935
20000928; US 6338860 B1 CIP of US 1996-705594 19960830, Div ex US
1997-812865 19970306, CIP of US 1998-109139 19980702, US 1999-419127
19991015; US 2002048609 A1 CIP of US 1996-705594 19960830, Div ex US
1997-812865 19970306, CIP of US 1998-109139 19980702, Div ex US
1999-419127 19991015, US 2001-954926 20010918; EP 1221850 A1 EP
2000-977279 20000928, WO 2000-US41021 20000928; US 6509041 B2 CIP of US
1996-705594 19960830, Div ex US 1997-812865 19970306, CIP of US
1998-109139 19980702, Div ex US 1999-419127 19991015, US 2001-954926
20010918

FDT AU 2001014935 A Based on WO 200128335; US 6338860 B1 CIP of US 5736164,
Div ex US 5800837, CIP of US 5997910; US 2002048609 A1 CIP of US 5736164,
Div ex US 5800837, CIP of US 5997910; EP 1221850 A1 Based on WO 200128335;
US 6509041 B2 CIP of US 5736164, Div ex US 5800837, CIP of US 5997910, Div
ex US 6338860

PRAI US 1999-419127 19991015; US 1996-705594 19960830; US 1997-812865
19970306; US 1998-109139 19980702; US 2001-954926 20010918

IC ICM **A01N057-00**; **A01N059-26**

ICS **A01N057-10**; **A01N057-18**

AB WO 200128335 A UPAB: 20030206

NOVELTY - A composition (A) for preventing and controlling plant diseases caused by Phytophthora contains effective amounts of (a) at least one phosphonate salt (I) and (b) a phosphate salt.

DETAILED DESCRIPTION - A composition (A) for preventing and controlling plant diseases caused by Phytophthora contains effective amounts of (a) at least one phosphonate salt of formula (I) and (b) a phosphate salt of formula (II).

R1 = H, K, 1-4C alkyl, haloalkyl, nitroalkyl, alkenyl, haloalkenyl, alkynyl, haloalkynyl, alkoxyalkyl or ammonium substituted by alkyl or hydroxyalkyl;

R2, R3 = H or K;

M = K, alkaline earth metal, Al or ammonium;

n = 1-3 (i.e. the valency of M).

INDEPENDENT CLAIMS are included for: (i) a corresponding plant treatment method; and (ii) (A) as a composition for preventing diseases in plants caused by Phytophthora, Phycomycetes, Ascomycetes, other fungi and bacteria, where (a) and (b) have a synergistic disease control effect.

ACTIVITY - Fungicidal; bactericidal. In tests against Phytophthora infestans in potatoes, the average degree of infection was 1.85% after treatment with 1% potassium phosphonate (KH₂PO₃) solution, 18.45% after treatment with 1% potassium phosphate (K₂HPO₄) solution, 0.39% after treatment with 1% potassium phosphonate/1% potassium phosphate solution and 28.12% in untreated controls.

MECHANISM OF ACTION - None given.

USE - Especially for protecting tomato and potato plants against attack by Phytophthora infestans (claimed), i.e. late blight. (A) may be used before or after infection by the Phytophthora organism. (A) may also be effective in protecting plants against other fungi (specifically Phycomycetes, Ascomycetes) and bacteria. More generally the plants to be protected include fruit crops, agronomic crops, ornamentals, trees, grasses, vegetables, grains, flowers and some aquatic crops (e.g. watercress).

ADVANTAGE - (I) and (II) have a synergistic effect against Phytophthora fungi, especially Phytophthora infestans. (A) is environmentally safe and inexpensive to use; and has low mammalian toxicity.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: C05-B01P; C14-A01; C14-A06

TECH UPTX: 20010603

TECHNOLOGY FOCUS - AGRICULTURE - Preferred Composition: (a) is K₂HPO₃ (most preferred), KH₂PO₃, K₃PO₃, (NH₄)₂HPO₃ or (NH₄)H₂PO₄ (i.e. mono-, di- or tripotassium or mono- or diammonium phosphonate) and (b) is K₂HPO₄ (most preferred), KH₂PO₄ or K₃PO₄ (i.e. mono-, di- or tripotassium phosphate). (A) comprises an aqueous solution, containing each of (a) and (b) at 20 mM to 5% v/v. The weight ratio of (a) to (b) is 1 : 0.001-1000.

L154 ANSWER 4 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 2000-095913 [08] WPIX

CR 1998-239160 [21]; 1998-494717 [42]; 1999-418254 [35]; 2001-290777 [30]

DNC C2000-027868

TI Fertilizer composition for fruit and agronomic crops, ornamentals, trees, grasses consists of phosphonate and phosphate salts.

DC C04

IN TAYLOR, J B

PA (TAYL-I) TAYLOR J B

CYC 1

PI US 5997910 A 19991207 (200008)* 6p A01N059-26 <--

ADT US 5997910 A CIP of US 1996-705594 19960830, Div ex US 1997-812865 19970306, US 1998-109139 19980702

FDT US 5997910 A CIP of US 5736164, Div ex US 5800837

PRAI US 1997-812865 19970306; US 1996-705594 19960830; US 1998-109139

19980702

IC ICM **A01N059-26**

ICS C05B007-00; C05G003-00; C05G003-02

AB US 5997910 A UPAB: 20020524

NOVELTY - A fertilizer composition for stimulating enhanced growth comprises an aqueous solution of phosphonate and phosphate salts. The salts are present in the aqueous solution in an amount of 0.25-5% vol/vol.

DETAILED DESCRIPTION - The fertilizer composition for stimulating enhanced growth comprises phosphate and phosphonate salts of formula (I) and (II).

R1 = H, K, 1-4C alkyl, halo or nitro substituted alkyl, alkenyl, alkynyl, halogen substituted alkenyl or alkynyl, alkoxy substituted alkyl radical or ammonium substituted by alkyl or hydroxy alkyl radicals;

R2, R3 = H, potassium;

Me = potassium, alkaline earth metal cations, aluminum atom or ammonium cation;

n = 1, 2 or 3 and is equal to valence of Me.

The salts are present in the aqueous solution in an amount of 0.25-5% vol/vol.

ACTIVITY - Fungicidal.

1% of potassium phosphonate and 1% of potassium phosphate solution were applied to dogwood infected by mildew. When only potassium phosphonate solution was applied, pathological acerbation of the ascomycete fungus occurred in 100% of the dogwood leaves, while only 30% of infection was present in the control. But if potassium phosphonate was combined with potassium phosphate and it was applied to the dogwood, it completely eliminated the pathological acerbation and also reduced the amount of infection by 20%.

MECHANISM OF ACTION - None given.

USE - For fruit crops, agronomic crops, ornamentals, trees, grasses, vegetables, grains, floricultural crops and some aquatic crops including water cress.

ADVANTAGE - The fertilizer composition protects the plants against fungal infection especially Phycomycetes and Ascomycetes. It is environmentally safe, inexpensive and has low mammalian toxicity. It is effective as a growth stimulator and fertilizer.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: C05-B01P; C05-B02A2; **C05-B02A3**; C14-T03; C14-T04

TECH UPTX: 20000215

TECHNOLOGY FOCUS - AGRICULTURE - Preferred Composition: The amount of salts (I) and (II) in the composition is 1 part by weight and 0.001-1000 parts by weight respectively.

L154 ANSWER 5 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 1999-418254 [35] WPIX

CR 1998-239160 [21]; 1998-494717 [42]; 2000-095913 [08]; 2001-290777 [30]

DNC C1999-122806

TI Plant antifungal composition used for controlling e.g. Phycomycetes and Ascomycetes infection.

DC C01

IN **TAYLOR, J B**

PA (TAYL-I) TAYLOR J B

CYC 1

PI US 5925383 A 19990720 (199935)* 8p A01N057-00 <--

ADT US 5925383 A Div ex US 1996-705594 19960830, US 1997-943002 19971002

FDT US 5925383 A Div ex US 5736164

PRAI US 1996-705594 19960830; US 1997-943002 19971002

IC ICM **A01N057-00**ICS **A01N057-10; A01N057-18; A01N059-26**

AB US 5925383 A UPAB: 20020524

NOVELTY - Fungicidal composition for controlling fungus in plants comprises phosphate and phosphonate salts.

DETAILED DESCRIPTION - Fungicidal composition for controlling fungus in plants comprises at least one first phosphonate salt of formula (I), and a second phosphate salt of formula (II).

R1 = H, K, 1-4C alkyl, haloalkyl, nitroalkyl, alkenyl, haloalkenyl, alkynyl, haloalkynyl, alkoxyalkyl, alkyl ammonium, or hydroxyalkyl;
R2, R3 = H or K;

M = K, alkaline earth metal cation, aluminum atom or ammonium cation;
and

n = 1-3, equal to the valency of M.

The composition comprises an aqueous solution each of (I) and (II) being present in solution in amount 20 mmol to 5 % vol./vol., or the amount of (I) is 1 part by weight, and the amount of (II) is 0.001-1000 parts by weight.

ACTIVITY - Antifungal.

USE - The composition is used for controlling fungal disease in plants (claimed), especially Phycomycetes and Ascomycetes, and also Phytophthoran, Phythium, and Plasmopara. The composition can be used to protect citrus and fruit trees and vines. The composition may also have biocidal and arthropod pest control activity, and also have fertilizer effects.

ADVANTAGE - The composition does not cause pathological acerbation of Ascomycetes infections. The composition is environmentally safe, inexpensive to use, and has low mammalian toxicity.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: C05-B01G; C05-B01P; C14-A06; C14-B04; C14-T04

L154 ANSWER 6 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 1999-254552 [21] WPIX

DNC C1999-074444

TI Fungicidal compositions for protecting plants from parasitic fungi especially those caused by Phycomycetes and Ascomycetes.

DC C01 C03

IN TAYLOR, J B

PA (FOLI-N) FOLIAR NUTRIENTS INC

CYC 75

PI WO 9915017 A1 19990401 (199921)* EN 22p A01N057-00 <--

RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT
SD SE SZ UG ZW

W: AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU
ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX
NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN

AU 9744953 A 19990412 (199934) A01N057-00 <--

AU 741341 B 20011129 (200206)# A01N057-00 <--

NZ 503394 A 20020301 (200224) A01N057-00 <--

AU 2002018813 A 20020418 (200234)# A01N057-00 <--

ADT WO 9915017 A1 WO 1997-US16997 19970919; AU 9744953 A AU 1997-44953
19970919, WO 1997-US16997 19970919; AU 741341 B AU 1997-44953 19970919; NZ
503394 A NZ 1997-503394 19970919, WO 1997-US16997 19970919; AU 2002018813
A Div ex AU 1997-44953 19970919, AU 2002-18813 20020228

FDT AU 9744953 A Based on WO 9915017; AU 741341 B Previous Publ. AU 9744953,
Based on WO 9915017; NZ 503394 A Based on WO 9915017; AU 2002018813 A Div
ex AU 741341

PRAI WO 1997-US16997 19970919; AU 2002-18813 20020228

IC ICM A01N057-00

ICS A01N057-10; A01N057-18; A01N059-26

AB WO 9915017 A UPAB: 20011203

NOVELTY - Fungicidal compositions comprise phosphonate salts and phosphate salt.

DETAILED DESCRIPTION - Fungicidal compositions comprise phosphonate

salts of formula (I) and phosphate salts of formula (II):

R1 = alkenyl or alkynyl (both optionally substituted by halo), 1-4C alkyl, alkyl (substituted with NO₂, halo or alkoxy), ammonium substituted by alkyl or hydroxyalkyl, H or potassium;

R2, R3 = H or K;

M = aluminum, alkaline earth metal or ammonium cations, or K; and
n = 1-3 and is equal to the valence of M.

An INDEPENDENT CLAIM is also included for a fungicidal composition comprising mono, di or tripotassium phosphonate and mono, di or tripotassium phosphate.

ACTIVITY - Fungicidal; anti-fungal protectant; biocidal; anti-arthropod pest control; fertilizer.

MECHANISM OF ACTION - Ethylene production stimulator.

USE - To control fungus diseases, especially those caused by Phycomycetes and Ascomycetes (including *Phyllactinia corylia*), on agronomic crops, ornamental plants, trees, grasses, vegetables, grains, some aquatic plants (e.g. water cress), flowers and fruit crops (e.g. grape vines, citrus). An aqueous solution (% per 100 gallons) of potassium phosphate (1) and potassium phosphonate (1) was sprayed on to Shumard Oak trees. Its anti-fungal activity against *Phyllactinia corylea* (powdery mildew) was compared against controls of no treatment, (% per 100 gallons) potassium phosphonate solution (1) and potassium phosphate (2). Samples were allocated by a randomized complete block design and 4 repetitions were used with an average of ten 30 gallon plots were used per sample. The infection rate, measured as percentage of leaves infected, was: control 20, potassium phosphonate 40, potassium phosphonate / potassium phosphate mixture 0, potassium phosphate 0. Phytotoxicity, as determined by crop injury to leaves falling from the plants, was nil for all groups.

ADVANTAGE - The use of phosphonate salts alone to control fungal growth can lead to an eiphotic outbreak of ascomycete infections, often more widespread than in unprotected plants. This pathological acerbation is avoided by the use of the new compositions. Plants can be protected from fungal infections inexpensively and with agents that are non-toxic to mammals.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: C05-B02A3; C14-A04; C14-A06

TECH UPTX: 19990603

TECHNOLOGY FOCUS - AGRICULTURE - Preferred Composition: The phosphonate and phosphate salts are in aqueous solution and are each present in concentrations of 20 mmole - 5 vol.%. The phosphonate:phosphate ratio (parts by weight) is 1: 0.001-1000.

L154 ANSWER 7 OF 10 WPIX (C) 2003 THOMSON DERWENT

AN 1998-494717 [42] WPIX

CR 1998-239160 [21]; 1999-418254 [35]; 2000-095913 [08]; 2001-290777 [30]

DNC C1998-148956

TI Fertiliser and plant growth composition - comprises phosphate and phosphonate salts and their derivatives.

DC C04

IN TAYLOR, J; TAYLOR, J B

PA (TAYL-I) TAYLOR J; (FOLI-N) FOLIAR NUTRIENTS INC

CYC 81

PI US 5800837 A 19980901 (199842)* 6p A01N059-26 <--

WO 9838863 A1 19980911 (199842) EN A01N057-00 <--

RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA
PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
US UZ VN YU ZW

AU 9861809 A 19980922 (199908) A01N057-00 <--

MX 9908200 A1 19991201 (200110) A01N057-00 <--
 AU 749891 B 20020704 (200255) A01N057-00 <--
 ADT US 5800837 A CIP of US 1996-705594 19960830, US 1997-812865 19970306; WO 9838863 A1 WO 1998-US3459 19980224; AU 9861809 A AU 1998-61809 19980224;
 MX 9908200 A1 MX 1999-8200 19990906; AU 749891 B AU 1998-61809 19980224
 FDT US 5800837 A CIP of US 5736164; AU 9861809 A Based on WO 9838863; AU 749891 B Previous Publ. AU 9861809, Based on WO 9838863
 PRAI US 1997-812865 19970306; US 1996-705594 19960830
 IC ICM **A01N057-00; A01N059-26**
 ICS **A01N057-10; A01N057-18; A01N057-26;**
 C05B007-00; C05G003-00; C05G003-02
 AB US 5800837 A UPAB: 20020829
 A fertiliser composition for stimulating growth in plants comprises a growth stimulating effective amount of at least a first salt selected from K₂HPO₃, KH₂PO₃ and K₃PO₃, and a second salt selected from K₂HPO₄, KH₂PO₄ and K₃PO₄.
 Also claimed is the stimulation of growth in plants by applying a composition comprising a growth stimulating effective amount of at least a first salt selected from K₂HPO₃, KH₂PO₃ and K₃PO₃, and a second salt selected from K₂HPO₄, KH₂PO₄ and K₃PO₄.
 USE - The composition is used as a growth stimulant, and as a phosphate fertiliser.
 ADVANTAGE - The composition shows improved antifungal activity against Phycomycetes and Ascomycetes, and does not cause pathological acerbation of Ascomycetes infections.
 Dwg.0/0
 FS CPI
 FA AB; DCN
 MC CPI: **C05-A01A; C05-B02A3; C05-B02A5; C14-A04; C14-A06;**
C14-T03; C14-U01

L154 ANSWER 8 OF 10 WPIX (C) 2003 THOMSON DERWENT
 AN 1998-239160 [21] WPIX
 CR 1998-494717 [42]; 1999-418254 [35]; 2000-095913 [08]; 2001-290777 [30]
 DNC C1998-074603
 TI Fungicidal composition for plants - comprises potassium phosphonate and potassium phosphate salts.
 DC C03
 IN **TAYLOR, J B**
 PA (TAYL-I) TAYLOR J B
 CYC 1
 PI US 5736164 A 19980407 (199821)* A01N059-26 <--
 ADT US 5736164 A US 1996-705594 19960830
 PRAI US 1996-705594 19960830
 IC ICM **A01N059-26**
 AB US 5736164 A UPAB: 20020524
 Fungicidal composition for plants comprises: (a) a first salt selected from dipotassium phosphonate (K₂HPO₃), tripotassium phosphonate (K₃PO₃), or preferably monopotassium phosphonate (KH₂PO₃); and (b) a second salt selected from dipotassium phosphate (K₂HPO₄), tripotassium phosphate (K₃PO₄) or preferably monopotassium phosphate (KH₂PO₄) as an aqueous solution containing 20 millimole to 5 vol./vol. % (a) and (b).
 USE - The phosphonates in the composition are of use in protecting plants, particularly grape vines, citrus and fruit trees and tropical plants from fungal attack e.g. from Phycomycetes. The phosphonates enhance the phytoimmune system when assimilated by triggering the induction of ethylene production, followed by a rapid accumulation of phytoalexins at the site of infection.
 ADVANTAGE - The combination of phosphates with phosphonates in the fungicidal composition allows the control of e.g. Phycomycetes and Ascomycetes without causing the pathological acerbation, e.g. the eiphytotic outbreak of Ascomycetes fungi caused by use of phosphonate compositions used alone.

Dwg.0/0
FS CPI
FA AB
MC CPI: C05-B02A3; C14-A06

L154 ANSWER 9 OF 10 WPIX (C) 2003 THOMSON DERWENT
AN 1982-22869E [12] WPIX
CR 1975-31251W [19]
TI Increasing resistance of perennial plants to cold weather - by foliar application of aq. soln. of water-soluble condensed **phosphate**.

DC C03
PA (SEIK-N) SEIKAKEN KK
CYC 1

PI JP 57026608 A 19820212 (198212)* 3p <--
PRAI JP 1972-113842 19721115; JP 1980-129123 19800722

IC A01N059-26

AB JP 57026608 A UPAB: 19930915

Agent for increasing cold weather resistance of perennial plant by foliar application, comprises aq. soln. of water-soluble condensed **phosphate** (salt). The cationic part of the condensed **phosphoric** acid salt may be any organic metal cation, pref. potassium. The concn. of the condensed **phosphoric** acid salt is 0.05-1% (as P2O5).

Germination disorders of grape due to cold weather can be prevented, and good harvest yields obtd. Further, death of tea leaves and mulberry leaves due to late frost can be prevented.

In an example, **orthophosphoric** acid and **phosphoric** acid anhydride are mixed and condensed under heating to give condensed **phosphoric** acid of following composition: **orthophosphoric** acid 6%, **pyrophosphoric** acid 19%, tri **polyphosphoric** acid 18%, tetra **polyphosphoric** acid 15% and more than penta-**polyphosphoric** acid 42%. About 85% of all of the free hydroxy gps. of this condensed **phosphoric** acid is neutralised with aq. soln. of potassium hydroxide to give a cold weather resistance increasing agent of following composition: P2O5 15 wt.%, K2O 14 wt.% and H2O 71 wt.%. When applying to foliage, this agent is diluted so that the P2O5 content is 0.05-1%, and then applied.

FS CPI
FA AB
MC CPI: C05-B02A3; C12-P10

L154 ANSWER 10 OF 10 WPIX (C) 2003 THOMSON DERWENT
AN 1980-15727C [09] WPIX
TI Agent for preventing withering of rice - contains at least two **phosphate** component, potassium component and iron component.

DC C03
PA (NISC) NISSAN CHEM IND LTD
CYC 1

PI JP 55009050 A 19800122 (198009)* <--
JP 61039922 B 19860906 (198640) <--

PRAI JP 1978-82597 19780707

IC A01N059-26

AB JP 55009050 A UPAB: 19930902

The agent contains as active component ≥ 2 components selected from **phosphate** component, K component and Fe component.

Phosphate components include e.g. Na **phosphate**, Mg **phosphate**, Ca **phosphate**, etc. K components include e.g. KCl, K2SO4, etc. K **phosphate** is particularly suitable since it contains both the **phosphate** and K components. Iron components include e.g. Fe chelate cpd. and inorganic Fe salt.

FS CPI
FA AB
MC CPI: C05-A01A; C05-A03A; C05-B02A3; C12-P10

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:36:00 ON 27 MAR 2003

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FILE COVERS 1907 - 27 Mar 2003 VOL 138 ISS 13

FILE LAST UPDATED: 26 Mar 2003 (20030326/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot

L158 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS

AN 1985:191186 HCAPLUS

DN 102:191186

TI Soft gelatin capsules containing vitamin E and vitamin A

IN Ismail, Roshdy

PA Fed. Rep. Ger.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K031-355

ICS A61K031-07

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 18

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3426935	A1	19850307	DE 1984-3426935	19840721 <--
PRAI	DE 1983-3329440		19830816 <--		
	DE 1983-3337186		19831013 <--		
	DE 1984-3405991		19840220 <--		

AB Capsules providing vitamin A [11103-57-4] together with a high dose of vitamin E [1406-18-4] contain vitamin E 60-93, vitamin A 0-11, neutral fatty oil 4-30, and emulsifier 0.4-10% by wt. The soft capsules are easy to take, are absorbed easily, and storage stable. Soft gelatin capsules contained vitamin A palmitate [79-81-2] 13.75-15.125, dl-.alpha.-tocopherol acetate [52225-20-4] 200-210, soybean oil 42.5, peanut oil 12.375, and Polysorbate 80 [9005-65-6] 10 mg. The gelatin coating, 106.33-124.83 mg, contained gelatin 75-88, 85% glycerol 21, and sorbitol, sorbitan and mannitol 12-14 mg.

ST tocopherol vitamin A capsule

IT Corn oil

Peanut oil

RL: BIOL (Biological study)

(capsules contg. emulsifiers and oils and)

IT Castor oil
 RL: BIOL (Biological study)
 (ethoxylated hydrogenated, vitamin E capsules contg.)

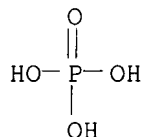
IT Soybean oil
 RL: BIOL (Biological study)
 (vitamin E capsules contg.)

IT 58-95-7 59-02-9 59-43-8, biological studies 68-19-9 79-81-2
 83-88-5, biological studies 98-92-0 127-47-9 1406-18-4 2074-53-5
 3687-45-4 **7757-86-0** 7779-25-1 8059-24-3 9005-65-6
 9016-45-9 11103-57-4 18962-61-3 34717-03-8 39279-69-1 52225-20-4
 RL: BIOL (Biological study)
 (capsules contg. emulsifiers and oils and)

IT **7757-86-0**
 RL: BIOL (Biological study)
 (capsules contg. emulsifiers and oils and)

RN 7757-86-0 HCAPLUS

CN Phosphoric acid, magnesium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Mg

L158 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS

AN **1983:458755** HCAPLUS

DN **99:58755**

TI Magnesium phosphate for stabilization of calcium hydrogen phosphate dihydrate for tooth paste

PA Central Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C01B025-34; A61K007-16; C01B025-32

CC **62-7** (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58015017	A2	19830128	JP 1981-109262	19810715 <--
	JP 62035962	B4	19870805		
PRAI	JP 1981-109262		19810715 <--		

AB CaHPO4.2H2O in tooth pastes is stabilized by magnesium phosphate. Thus, MgSO4 (a 10% soln.) was added to a 10% NaH2PO4 soln. such that the Mg/P mol ratio became 1.5, and the pH was kept >9 during the reaction by adding 5N NaOH at 35.degree. for 1 h. The size of crystals formed was 50-150 .mu., and the crystals were isolated, washed, and dried. The crystals were Mg3(PO4)2.8H2O. The stability of CaHPO4.2H2O in the presence of Mg3(PO4)2.8H2O in a test medium, glycerin, was demonstrated.

ST calcium magnesium phosphate toothpaste

IT Dentifrices

(calcium phosphate stabilization in, by magnesium phosphate)

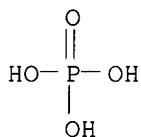
IT **7757-87-1**

RL: BIOL (Biological study)

(calcium phosphate stabilization by, in toothpaste)

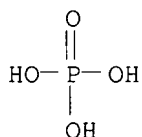
IT **7757-93-9**

RL: PROC (Process)
 (stabilization of, in toothpaste by magnesium phosphate)
 IT 7757-87-1
 RL: BIOL (Biological study)
 (calcium phosphate stabilization by, in toothpaste)
 RN 7757-87-1 HCAPLUS
 CN Phosphoric acid, magnesium salt (2:3) (8CI, 9CI) (CA INDEX NAME)



● 3/2 Mg

IT 7757-93-9
 RL: PROC (Process)
 (stabilization of, in toothpaste by magnesium phosphate)
 RN 7757-93-9 HCAPLUS
 CN Phosphoric acid, calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

L158 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS

AN 1983:427829 HCAPLUS

DN 99:27829

TI Stabilized calcium hydrogen phosphate dihydrate for toothpaste

PA Central Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C01B025-32; A61K007-16

CC 62-7 (Essential Oils and Cosmetics)

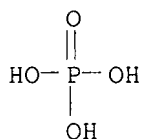
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58015015	A2	19830128	JP 1981-109264	19810715 <--
	JP 62035963	B4	19870805		
PRAI	JP 1981-109264		19810715	<--	

AB Toothpastes contain noncryst. Mg₃(PO₄)₂ and stabilized CaHPO₄·2H₂O crystals prepd. from a reaction of alkali metal phosphate with Ca at <40.degree. and pH 2.5-3.5 and then at <40.degree. and pH 3.5-5.0. Unlike conventional toothpastes, these preps. do not cause dehydration of CaHPO₄·2H₂O and, as a result, the preps. are stable. Thus, a NaNH₄HPO₄ soln. (contg. 7% P₂O₅) was treated with 20% CaCl₂ (mol. ratio of Ca/P1.10) at 30.degree. and pH 2.7 (pH adjusted with 35% HCl) and then at 30.degree.

and pH 4.3 [pH adjusted with 20% Ca(OH)₂] to give a slurry, which was sepd. washed and dried at 50.degree. to produce a cryst. CaHPO₄.2H₂O mixt. Sep., 10% NaH₂PO₄ was gradually added to 10% MgSO₄ while 5N NaOH was added to maintain a pH of <9. The reaction mixt. with a Mg/P mol. ratio of 1.5 was incubated at 35.degree. for 1 h, filtered, washed and dried at 40.degree. to form Mg(PO₄)₂ crystals (50-150 .mu.). A toothpaste contg. 100 parts CaHPO₄.2H₂O, 3 parts Mg₃(PO₄)₂ and other components had sp. gr of 0.89 g/mL and was stable at 50.degree. for up to 6 mo.

ST toothpaste calcium phosphate; magnesium phosphate toothpaste stabilizer
 IT Dentifrices
 (calcium phosphate and magnesium phosphate in)
 IT 13011-54-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with calcium chloride)
 IT 7558-80-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with magnesium sulfate)
 IT 10043-52-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with sodium ammonium phosphate)
 IT 7487-88-9, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with sodium dihydrogen phosphate)
 IT 7757-87-1
 RL: BIOL (Biological study)
 (toothpaste contg. calcium phosphate and)
 IT 7789-77-7
 RL: BIOL (Biological study)
 (toothpaste contg. magnesium phosphate and)
 IT 7757-87-1
 RL: BIOL (Biological study)
 (toothpaste contg. calcium phosphate and)
 RN 7757-87-1 HCAPLUS
 CN Phosphoric acid, magnesium salt (2:3) (8CI, 9CI) (CA INDEX NAME)



● 3/2 Mg

=> d his

(FILE 'STNGUIDE' ENTERED AT 07:43:33 ON 27 MAR 2003)
 DEL HIS

FILE 'REGISTRY' ENTERED AT 07:46:51 ON 27 MAR 2003

L1 1 S 7664-38-2
 L2 13873 S 7664-38-2/CRN
 L3 770 S L2 AND K/ELS
 L4 523 S L2 AND H3N
 L5 24 S L3 AND 2/NC
 L6 8 S L5 NOT IDS/CI
 L7 7 S L6 NOT FK
 L8 22 S L4 AND 2/NC

L9 13 S L8 NOT IDS/CI
 L10 11 S L9 NOT 15N
 L11 22 S L2 AND H3O3P
 L12 14 S L11 AND NR>=1
 L13 8 S L11 NOT L12
 L14 2 S L13 AND ("H3O4P.H3O3P.3K" OR "H3O4P.H3O3P.4K")/MF
 L15 680 S L2 AND CA/ELS
 L16 43 S L15 AND 2/NC
 L17 16 S L16 NOT IDS/CI
 L18 13 S L17 NOT (45CA OR MXS/CI)
 L19 12 S L18 NOT MNS/CI
 L20 5 S L2 AND BA/ELS AND 2/NC NOT IDS/CI
 L21 4 S L20 NOT MNS/CI
 L22 6 S L2 AND SR/ELS AND 2/NC NOT (IDS OR MNS)/CI
 L23 5 S L22 NOT 87SR
 L24 9 S L2 AND AL/ELS AND 2/NC NOT (IDS OR MNS)/CI
 L25 8 S L24 NOT ALN
 L26 11 S L19 NOT 45CA3
 L27 46 S L7,L10,L21,L23,L25,L26
 L28 44 S L27 NOT PMS/CI
 L29 10 S L2 AND O4P
 L30 8 S L29 NOT (TI/ELS OR C20H18NO4)
 L31 1 S 13598-36-2
 L32 739 S 13598-36-2/CRN
 L33 22 S L32 AND L2
 L34 20 S L33 NOT L14
 L35 717 S L32 NOT L33
 L36 113 S L35 AND (K OR CA OR BA OR SR OR AL OR H3N)
 L37 27 S L36 AND 2/NC
 L38 15 S L35 AND (BE OR MG)/ELS
 L39 9 S L38 AND 2/NC
 L40 396 S L2 AND (MG OR BE)/ELS
 L41 12 S L40 AND 2/NC NOT (IDS OR MNS OR PMS)/CI
 L42 11 S L41 NOT MXS/CI
 L43 55 S L28,L42
 L44 38 S L37,L42

FILE 'HCAPLUS' ENTERED AT 08:12:47 ON 27 MAR 2003

L45 3 S L14
 L46 44787 S L43
 L47 2834 S L44
 L48 2522 S L46 AND L47
 L49 1634 S L43 (L) AGR/RL
 L50 94 S L47 (L) AGR/RL
 L51 760 S L46 AND AGRO?/SC, SX
 L52 72 S L47 AND AGRO?/SC, SX
 L53 3999 S L46 AND FERTIL?/SC, SX
 L54 182 S L47 AND FERTIL?/SC, SX
 E FERTILI/CT
 E E20+ALL
 E E2+ALL
 E E7+ALL
 L55 54498 S E6,E5+NT
 L56 22352 S E16+NT OR E18+NT OR E19+NT
 L57 2858 S L46 AND L55,L56
 L58 146 S L47 AND L55,L56
 L59 4891 S L49,L51,L53,L57
 L60 261 S L50,L52,L54,L58
 L61 213 S L59 AND L60
 L62 68 S L61 AND (SYNERG? OR MIX? OF COMBIN? OR COMPOSITION OR FORMUL?
 E TAYLOR J/AU
 L63 447 S E3,E10-E16
 E TAYLOR JOHN/AU

L64 268 S E3,E12-E18
E FOLIAR/PA,CS
L65 7 S E3-E6
L66 5 S L65 AND L45-L62
L67 8 S L63,L64 AND L45-L62
L68 8 S L45,L66,L67
L69 2 S L65 NOT L68
L70 1 S L69 AND L63-L64
L71 9 S L68,L70
L72 8 S L71 NOT ICEBERG/TI
L73 8 S L72 AND (SYNERG? OR MIX? OR COMBIN? OR COMPOSITION OR FORMUL?
L74 203 S L61 AND (L1 OR L31 OR PHOSPHONATE OR PHOSPHATE)
L75 63 S L62 AND L74
L76 5 S L62 NOT L75
L77 7 S L73 AND L74
L78 8 S L73,L77

FILE 'REGISTRY' ENTERED AT 08:35:37 ON 27 MAR 2003

L79 1 S 41607-57-2
L80 1 S 10294-56-1
L81 136 S 10294-56-1/CRN
L82 24 S L81 AND (K OR CA OR BA OR SR OR AL OR H3N OR BE OR MG)
L83 0 S L82 AND L2
L84 7 S L82 AND 2/NC

FILE 'HCAPLUS' ENTERED AT 08:37:24 ON 27 MAR 2003

L85 72 S L84
L86 22 S L85 AND L46
L87 5 S L86 AND L59
L88 10 S L78,L87
L89 17 S L86 NOT L88
SEL DN AN 6-8
L90 10 S L88 AND L45-L78,L85-L89
L91 68 S L62,L75 NOT L89
L92 54 S L91 AND (PY<=1999 OR PRY<=1999 OR AY<=1999)
L93 48 S L91 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L94 40 S L93 NOT L88
SEL DN AN 7
L95 1 S L94 AND E10-E12
L96 5 S L92 NOT L93,L88
L97 11 S L88,L95

FILE 'REGISTRY' ENTERED AT 08:56:09 ON 27 MAR 2003

L98 1 S 15477-76-6
L99 1 S 14265-44-2
L100 2 S L98,L99
SEL RN
L101 12244 S E13-E14/CRN
L102 10 S L2 AND L101
L103 5982 S L101 AND (K OR CA OR BA OR SR OR AL OR H3N OR BE OR MG)
L104 477 S L103 AND 2/NC
L105 403 S L104 NOT (MNS OR MXS OR IDS OR PMS)/CI
L106 2 S L105 NOT (TIS OR AYS)/CI

FILE 'HCAPLUS' ENTERED AT 08:59:02 ON 27 MAR 2003

L107 33667 S L98,L99
L108 185 S L107 AND L59
L109 164 S L108 AND (PY<=1999 OR PRY<=1999 OR AY<=1999)
L110 156 S L108 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L111 55 S L109,L110 AND (SYNERG? OR MIX? OR COMPOSITION OR COMBIN? OR F
L112 1 S L97 AND L108
L113 11 S L97,L112
L114 1 S L97 AND L107

L115 11 S L113,L114
L116 53 S L111 NOT L112-L115,L91-L97
L117 11 S L115 AND L45-L78,L85-L97,L107-L116
L118 10 S L117 AND (PHOSPHATE OR PHOSPHONATE OR PHOSPHORIC)
L119 11 S L117,L118

FILE 'HCAPLUS' ENTERED AT 09:07:08 ON 27 MAR 2003

L120 2708 S L48,L86,L108
L121 37 S L120 AND A01N/IC,ICM,ICS
L122 28 S L121 NOT L119
L123 25 S L122 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)

FILE 'WPIX' ENTERED AT 09:15:14 ON 27 MAR 2003

E A01N059-26/IC,ICM
L124 553 S E3,E4
E A01N059-26/ICS
L125 244 S E3
L126 553 S L124,L125
E TAYLOR J/AU
L127 257 S E3,E7-E9
E FOLIAR/PA
L128 9 S E3,E4
L129 7 S L126 AND L127,L128
L130 13 S A01N/IC,ICM,ICS AND L127,L128
L131 6 S L130 NOT L129
SEL DN AN 1
L132 1 S L131 AND E1-E2
L133 8 S L129,L132 AND L124-L132
L134 9782 S (C05-B02A OR B05-B02A OR C05-B02A3 OR B05-B02A3)/MC
L135 2612 S L127,L134 AND A119/M0,M1,M2,M3,M4,M5,M6
L136 2049 S L127,L134 AND (C05-A01A OR B05-A01A)/MC
L137 74 S L135,L136 AND L126
L138 236 S L136 AND (1772 OR 1731 OR 1769)/DRN
L139 178 S L136 AND (R01772 OR R01731 OR R01769)/DCN
E POTASSIUM PHOSPHATE/DCN
E E4+ALL
L140 1547 S E4 OR 1753/DRN
L141 124 S L140 AND L136
L142 266 S L138,L139,L141
L143 6 S L142 AND L126
SEL DN AN 4 5 6
L144 3 S L143 NOT E1-E5
L145 9 S L133,L144
L146 64 S L137 NOT L143-L145
L147 56 S L146 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L148 2 S L147 AND ?PHOSPHON?/BIX
L149 39 S L147 AND ?PHOSPHAT?/BIX
L150 21 S L147 AND ?PHOSPHOR?/BIX
L151 2 S L148 AND L149,L150
L152 54 S L147 NOT L151
SEL DN AN 44 46
L153 2 S L152 AND E6-E7
L154 10 S L133,L153 AND L124-L153

FILE 'WPIX' ENTERED AT 10:25:33 ON 27 MAR 2003

FILE 'HCAPLUS' ENTERED AT 10:25:49 ON 27 MAR 2003

L155 185 S L120 AND (1 OR 62 OR 63)/SC
L156 59 S L120 AND (1 OR 62 OR 63)/SX
L157 177 S L155,L156 AND (PY<=1999 OR PRY<=1999 OR AY<=1999)
SEL DN AN 134 146 147
L158 3 S L157 AND E8-E16

levy - 10 / 040046

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FILE 'HCAPLUS' ENTERED AT 10:36:00 ON 27 MAR 2003

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 \$0.00 Estimated cost File415
 \$0.65 TELNET
 \$0.65 Estimated cost this search
 \$0.65 Estimated total session cost 0.100 DialUnits

File 345:Inpadoc/Fam.& Legal Stat 1968-2002/UD=200252
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Set	Items	Description
S1	1	PN=US 5997910

1/39/1

DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat
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16830949

Basic Patent (No,Kind,Date): US 5736164 A 19980407 <No. of Patents: 013>

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
AU 9861809	A1	19980922	AU 9861809	A	19980224
AU 200114935	A5	20010430	AU 200114935	A	20000928
AU 749891	B2	20020704	AU 9861809	A	19980224
EP 1221850	A1	20020717	EP 2000977279	A	20000928
TR 200201017	T2	20020923	TR 200201017	A	20000928
US 5736164	A	19980407	US 705594	A	19960830
US 5800837	A	19980901	US 812865	A	19970306
US 5925383	A	19990720	US 943002	A	19971002
US 5997910	A	19991207	US 109139	A	19980702
US 20020048609	AA	20020425	US 954926	A	20010918
US 6338860	BA	20020115	US 419127	A	19991015
WO 9838863	A1	19980911	WO 98US3459	A	19980224
WO 200128335	A1	20010426	WO 2000US41021	A	20000928

(BASIC)

Priority Data (No,Kind,Date):

US 812865 A 19970306
 WO 98US3459 W 19980224
 US 419127 A 19991015
 WO 2000US41021 W 20000928
 US 705594 A 19960830
 US 705594 A2 19960830
 US 943002 A 19971002
 US 705594 A3 19960830
 US 109139 A 19980702
 US 812865 A3 19970306
 US 954926 A 20010918
 US 419127 A3 19991015
 US 109139 A2 19980702

PATENT FAMILY:

AUSTRALIA (AU)

Patent (No,Kind,Date): AU 9861809 A1 19980922

PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE
 SALTS, AND DERIVATIVES THEREOF (English)

Patent Assignee: TAYLOR JOHN

Author (Inventor): TAYLOR JOHN

Priority (No,Kind,Date): US 812865 A 19970306; WO 98US3459 W
 19980224

Applic (No,Kind,Date): AU 9861809 A 19980224

IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-057/26; A01N-059/26
; C05B-007/00; C05G-003/00

CA Abstract No: * 129(16)202483C

Language of Document: English

Patent (No,Kind,Date): AU 200114935 A5 20010430

COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND
DERIVATIVES THEREOF (English)

Patent Assignee: FOLIAR NUTRIENTS INC

Author (Inventor): TAYLOR JOHN B

Priority (No,Kind,Date): US 419127 A 19991015; WO 2000US41021 W
20000928

Applic (No,Kind,Date): AU 200114935 A 20000928

IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-059/26

CA Abstract No: * 134(21)291526N

Derwent WPI Acc No: * C 01-290777

Language of Document: English

Patent (No,Kind,Date): AU 749891 B2 20020704

PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE
SALTS, AND DERIVATIVES THEREOF (English)

Patent Assignee: FOLIAR NUTRIENTS INC

Author (Inventor): TAYLOR JOHN

Priority (No,Kind,Date): US 812865 A 19970306; WO 98US3459 W
19980224

Applic (No,Kind,Date): AU 9861809 A 19980224

IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-057/26; A01N-059/26
; C05B-007/00; C05G-003/00

CA Abstract No: * 129(16)202483C; 136(06)081312E

Derwent WPI Acc No: * C 00-095913

Language of Document: English

EUROPEAN PATENT OFFICE (EP)

Patent (No,Kind,Date): EP 1221850 A1 20020717

COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND
DERIVATIVES THEREOF (English; French; German)

Patent Assignee: FOLIAR NUTRIENTS INC (US)

Author (Inventor): TAYLOR JOHN B (US)

Priority (No,Kind,Date): WO 2000US41021 W 20000928; US 419127 A
19991015

Applic (No,Kind,Date): EP 2000977279 A 20000928

Designated States: (National) AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LI; LU; MC; NL; PT; SE

IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-059/26

CA Abstract No: * 134(21)291526N; 136(06)081312E

Derwent WPI Acc No: * C 01-290777

Language of Document: English

EUROPEAN PATENT OFFICE (EP)

Legal Status (No,Type,Date,Code,Text):

EP 1221850 P 19991015 EP AA PRIORITY (PATENT
APPLICATION) (PRIORITAET (PATENTANMELDUNG))

US 419127 A 19991015
EP 1221850 P 20000928 EP AA PCT-APPLICATION
(PCT-ANMELDUNG)

WO 2000US41021 W 20000928
EP 1221850 P 20000928 EP AE EP-APPLICATION
(EUROPAEISCHE ANMELDUNG)

EP 2000977279 A 20000928
EP 1221850 P 20020717 EP AK DESIGNATED CONTRACTING
STATES IN AN APPLICATION WITH SEARCH REPORT:
(IN EINER ANMELDUNG BENANNTE VERTRAGSSTAATEN)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
EP 1221850 P 20020717 EP AX EXTENSION OF THE EUROPEAN
PATENT TO (ERSTRECKUNG DES EUROPÄISCHEN
PATENTS AUF)
AL;LT;LV;MK;RO;SI
EP 1221850 P 20020717 EP A1 PUBLICATION OF APPLICATION
WITH SEARCH REPORT (VERÖFFENTLICHUNG DER
ANMELDUNG MIT RECHERCHENBERICHT)
EP 1221850 P 20020717 EP 17P REQUEST FOR EXAMINATION
FILED (PRUEFUNGSANTRAG GESTELLT)
20020502

TURKEY (TR)

Patent (No,Kind,Date): TR 200201017 T2 20020923
FOSFONAT VE FOSFAT TUZLARI, VE BUNLARIN TUEREVLERINI IHTIVA EDEN
BITKILERE YOENELIK KOMPOZISYONLAR (Turkish)
Patent Assignee: FOLIAR NUTRIENTS INC (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 419127 A 19991015
Applic (No,Kind,Date): TR 200201017 A 20000928
IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-059/26
CA Abstract No: * 134(21)291526N; 136(06)081312E
Derwent WPI Acc No: * C 01-290777
Language of Document: Turkish

UNITED STATES OF AMERICA (US)

Patent (No,Kind,Date): US 5736164 A 19980407
FUNGICIDAL COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE
SALTS, AND DERIVATIVES THEREOF (English)
Patent Assignee: TAYLOR JOHN B (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 705594 A 19960830
Applic (No,Kind,Date): US 705594 A 19960830
National Class: * 424601000; 424605000
IPC: * A01N-059/26
CA Abstract No: * 128(21)254062P; 129(16)202483C; 128(21)254062P
Derwent WPI Acc No: * C 98-239160; C 00-095913; C 98-239160
Language of Document: English
Patent (No,Kind,Date): US 5800837 A 19980901
PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE
SALTS AND DERIVATIVES THEREOF (English)
Patent Assignee: FOLIAR NUTRIENTS INC (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 812865 A 19970306; US 705594 A2
19960830
Applic (No,Kind,Date): US 812865 A 19970306
Addnl Info: 5736164 Patented
National Class: * 424601000; 071036000; 424605000; 504101000
IPC: * A01N-059/26; C05B-007/00; C05G-003/00; C05G-003/02
CA Abstract No: * 128(21)254062P; 129(16)202483C; 129(16)202483C
Derwent WPI Acc No: * C 98-239160; C 00-095913
Language of Document: English
Patent (No,Kind,Date): US 5925383 A 19990720
FUNGICIDAL COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE
SALTS, AND DERIVATIVES THEREOF (English)
Patent Assignee: TAYLOR JOHN B (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 943002 A 19971002; US 705594 A3
19960830
Applic (No,Kind,Date): US 943002 A 19971002
Addnl Info: 5736164 Patented

National Class: * 424601000; 424605000; 514129000; 514131000;
514141000; 514142000; 514143000
IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-059/26
CA Abstract No: * 128(21)254062P; 129(16)202483C
Derwent WPI Acc No: * C 98-239160; C 00-095913
Language of Document: English
Patent (No,Kind,Date): US 5997910 A 19991207
PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE
SALTS AND DERIVATIVES THEREOF (English)
Patent Assignee: TAYLOR JOHN B (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 109139 A 19980702; US 812865 A3
19970306; US 705594 A2 19960830
Applic (No,Kind,Date): US 109139 A 19980702
Addnl Info: 5800837 19980901 Patented; 5736164 19980407 Patented
National Class: * 424601000; 071036000; 424605000; 504101000;
514129000; 514131000; 514141000; 514142000; 514143000
IPC: * A01N-059/26; C05B-007/00; C05G-003/00; C05G-003/02
CA Abstract No: * 128(21)254062P; 129(16)202483C
Derwent WPI Acc No: * C 98-239160; C 00-095913; C 00-095913
Language of Document: English
Patent (No,Kind,Date): US 20020048609 AA 20020425
COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND
DERIVATIVES THEREOF (English)
Patent Assignee: TAYLOR JOHN B (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 954926 A 20010918; US 419127 A3
19991015; US 109139 A2 19980702; US 812865 A3 19970306; US 705594
A2 19960830
Applic (No,Kind,Date): US 954926 A 20010918
Addnl Info: 5997910 Patented; 5800837 Patented; 5736164 Patented
National Class: * 424601000; 424605000; 514129000; 514131000;
514141000; 514142000; 514143000
IPC: * A01N-057/00; A01N-057/18; A01N-057/10; A01N-059/26
CA Abstract No: * 128(21)254062P; 129(16)202483C; 134(21)291526N;
136(06)081312E
Derwent WPI Acc No: * C 98-239160; C 00-095913; C 01-290777
Language of Document: English
Patent (No,Kind,Date): US 6338860 BA 20020115
COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND
DERIVATIVES THEREOF (English)
Patent Assignee: FOLIAR NUTRIENTS INC (US)
Author (Inventor): TAYLOR JOHN B (US)
Priority (No,Kind,Date): US 419127 A 19991015; US 109139 A2
19980702; US 812865 A3 19970306; US 705594 A2 19960830
Applic (No,Kind,Date): US 419127 A 19991015
Addnl Info: 5997910 Patented; 5800837 Patented; 5736164 Patented
National Class: * 424601000; 424605000; 514129000; 514131000;
514141000; 514142000; 514143000
IPC: * A01N-059/26; A01N-057/00; A01N-057/18; A01N-057/10
CA Abstract No: ; 136(06)081312E
Language of Document: English
UNITED STATES OF AMERICA (US)
Legal Status (No,Type,Date,Code,Text):
US 5736164 P 19960830 US AE APPLICATION DATA (PATENT)
(APPL. DATA (PATENT))
US 705594 A 19960830
US 5736164 P 19980407 US A PATENT
US 5736164 P 20010102 US RR REQUEST FOR REEXAMINATION
FILED
20001206
US 5800837 P 19960830 US AA PRIORITY

US 5800837	P	US 705594 A2 19960830 19970306 US AE APPLICATION DATA (PATENT) (APPL. DATA (PATENT))
US 5800837	P	US 812865 A 19970306 19970714 US AS02 ASSIGNMENT OF ASSIGNOR'S INTEREST FOLIAR NUTRIENTS, INC. 321 AVENUE N.E. P.O. BOX 479 CAIRO, GEORGIA 31720 ; TAYLOR, JOHN B. : 19970324
US 5800837	P	19980901 US A PATENT
US 5800837	P	20010102 US RR REQUEST FOR REEXAMINATION FILED 20001206
US 5800837	P	20010918 US CC CERTIFICATE OF CORRECTION
US 5925383	P	19960830 US AA PRIORITY
US 5925383	P	US 705594 A3 19960830 19971002 US AE APPLICATION DATA (PATENT) (APPL. DATA (PATENT))
US 5925383	P	US 943002 A 19971002
US 5925383	P	19990720 US A PATENT
US 5925383	P	20010206 US CC CERTIFICATE OF CORRECTION
US 5997910	P	19960830 US AA PRIORITY (CONTINUATION IN PART)
US 5997910	P	US 705594 A2 19960830 19970306 US AA PRIORITY (DIVISION)
US 5997910	P	US 812865 A3 19970306 19980702 US AE APPLICATION DATA (PATENT) (APPL. DATA (PATENT))
US 5997910	P	US 109139 A 19980702
US 5997910	P	19991207 US A PATENT
US 5997910	P	20020702 US RF REISSUE APPLICATION FILED (REISSUE APPL. FILED) 20011019
US 6338860	P	19960830 US AA PRIORITY (CONTINUATION IN PART)
US 6338860	P	US 705594 A2 19960830 19970306 US AA PRIORITY (DIVISION)
US 6338860	P	US 812865 A3 19970306 19980702 US AA PRIORITY (CONTINUATION IN PART)
US 6338860	P	US 109139 A2 19980702 19991015 US AE APPLICATION DATA (PATENT) (APPL. DATA (PATENT))
US 6338860	P	US 419127 A 19991015
US 6338860	P	20020115 US BA PATENT (NO PREVIOUS PRE-GRANT PUBLICATION)
US 20020048609	P	19960830 US AA PRIORITY (CONTINUATION IN PART)
US 20020048609	P	US 705594 A2 19960830 19970306 US AA PRIORITY (DIVISION)
US 20020048609	P	US 812865 A3 19970306 19980702 US AA PRIORITY (CONTINUATION IN PART)
US 20020048609	P	US 109139 A2 19980702 19991015 US AA PRIORITY (DIVISION)
US 20020048609	P	US 419127 A3 19991015
US 20020048609	P	20010918 US AE APPLICATION DATA (PATENT) (APPL. DATA (PATENT))
US 20020048609	P	US 954926 A 20010918 20020425 US A1A1 PATENT APPLICATION PUBLICATION (PRE-GRANT)

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Patent (No,Kind,Date): WO 9838863 A1 19980911

PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND DERIVATIVES THEREOF (English)

Patent Assignee: TAYLOR JOHN (US)

Author (Inventor): TAYLOR JOHN (US)

Priority (No,Kind,Date): US 812865 A 19970306

Applic (No,Kind,Date): WO 98US3459 A 19980224

Designated States: (National) AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; GM; GW; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW (Regional) GH; GM; KE; LS; MW; SD; SZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

Filing Details: WO 130000 With international search report; Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments

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CA Abstract No: * 129(16)202483C

Derwent WPI Acc No: * C 00-095913

Language of Document: English

Patent (No,Kind,Date): WO 200128335 A1 20010426

COMPOSITIONS FOR PLANTS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS, AND DERIVATIVES THEREOF (English)

Patent Assignee: FOLIAR NUTRIENTS INC (US)

Author (Inventor): TAYLOR JOHN B

Priority (No,Kind,Date): US 419127 A 19991015

Applic (No,Kind,Date): WO 2000US41021 A 20000928

Designated States: (National) AE; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW (Regional) GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

Filing Details: WO 130000 With international search report; Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments

IPC: * A01N-057/00; A01N-057/10; A01N-057/18; A01N-059/26

CA Abstract No: * 134(21)291526N; 134(21)291526N

Derwent WPI Acc No: * C 01-290777; C 01-290777

Language of Document: English

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Legal Status (No,Type,Date,Code,Text):

WO 9838863 P 19970306 WO AA PRIORITY (PATENT)
US 812865 A 19970306

WO 9838863 P 19980224 WO AE APPLICATION DATA (APPL.
DATA)

WO 9838863 P 19980911 WO AK DESIGNATED STATES CITED IN A
PUBLISHED APPLICATION WITH SEARCH REPORT
(DESIGNATED STATES CITED IN A PUBLISHED APPL.
WITH SEARCH REPORT)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ
DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK

MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT UA UG US UZ VN YU ZW

WO 9838863 P 19980911 WO AL DESIGNATED COUNTRIES FOR
REGIONAL PATENTS CITED IN A PUBLISHED
APPLICATION WITH SEARCH REPORT (DESIGNATED
COUNTRIES FOR REGIONAL PATENTS CITED IN A
PUBLISHED APPL. WITH SEARCH REPORT)
GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD
RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT
LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR
NE SN TD TG

WO 9838863 P 19980911 WO A1 PUBLICATION OF THE
INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT (PUB. OF THE
INTERNATIONAL APPL. WITH THE INTERNATIONAL
SEARCH REPORT)

WO 9838863 P 19981203 WO DFPE REQUEST FOR PRELIMINARY
EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH
MONTH FROM PRIORITY DATE

WO 9838863 P 19990203 WO 121 EP: PCT APP. ART. 158 (1)
(EP: PCT ANM. ART. 158 (1))

WO 9838863 P 20000105 DE 8642/REG IMPACT ABOLISHED FOR DE
(WIRKUNG WEGGEFALLEN FUER DE)

WO 9838863 P 20000229 WO NENP NON-ENTRY INTO THE NATIONAL
PHASE IN:
CA

WO 9838863 P 20000303 WO NENP NON-ENTRY INTO THE NATIONAL
PHASE IN:
JP 1998538569

WO 9838863 P 20001004 WO 122 EP: PCT APP. NOT ENT. EUROP.
PHASE (EP: PCT ANM. NICHT IN EUROP. PHASE
EING.)

WO 200128335 P 19991015 WO AA PRIORITY (PATENT)
US 419127 A 19991015

WO 200128335 P 20000928 WO AE APPLICATION DATA (APPL.
DATA)
WO 2000US41021 A 20000928

WO 200128335 P 20010426 WO AK DESIGNATED STATES CITED IN A
PUBLISHED APPLICATION WITH SEARCH REPORT
(DESIGNATED STATES CITED IN A PUBLISHED APPL.
WITH SEARCH REPORT)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR
CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU
ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN
YU ZA ZW

WO 200128335 P 20010426 WO AL DESIGNATED COUNTRIES FOR
REGIONAL PATENTS CITED IN A PUBLISHED
APPLICATION WITH SEARCH REPORT (DESIGNATED
COUNTRIES FOR REGIONAL PATENTS CITED IN A
PUBLISHED APPL. WITH SEARCH REPORT)
GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY
KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR
GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM
GA GN GW ML MR NE SN TD TG

WO 200128335 P 20010426 WO A1 PUBLICATION OF THE
INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT (PUB. OF THE
INTERNATIONAL APPL. WITH THE INTERNATIONAL
SEARCH REPORT)

WO 200128335 P 20010620 WO 121 EP: THE EPO HAS BEEN

INFORMED BY WIPO THAT EP WAS DESIGNATED IN
THIS APPLICATION

WO.200128335 P 20010816 WO DFPE REQUEST FOR PRELIMINARY
EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH
MONTH FROM PRIORITY DATE

WO 200128335 P 20020412 WO ENP ENTRY INTO THE NATIONAL
PHASE IN:
JP 53939 A

WO 200128335 P 20020926 DE 8642/REG IMPACT ABOLISHED FOR DE
(WIRKUNG WEGGEFALLEN FUER DE)

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